

MANUFACTURERS' RECORD

A WEEKLY SOUTHERN INDUSTRIAL, RAILROAD AND FINANCIAL NEWSPAPER

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THE POLITICS OF PROGRESS.

"Make business your politics instead of making politics your business" should be impressed upon the South until not only a few leaders, but everybody, comes to understand that politics for the spoils of politics has been a curse to many communities in this section. In reviewing the work of the West Virginia Board of Trade convention last week our special correspondent, Mr. Phenis, said:

In West Virginia the people have made business their politics, instead of making politics their business. For 15 or 20 years the great political leaders, such as ex-Governors Fleming, MacCorkle, Atkinson and White, and Senators Elkins and Davis, have lent their whole energies to material development. They are not like some of the leaders of the extreme South, one of the foremost of whom recently declared to me that the South resents any appeal for a course of action based on the benefit such course would confer on its pocketbook. In West Virginia, on the contrary, any candidate for office who did not center his interests and his work on the fundamental questions of State development would be buried too deep ever to hear any political Gabriel's trumpet call to resurrection. Too busy to take part in so-called "Southern" industrial parliaments, fake "Southern" immigration or quarantine conventions, West Virginia has for two days set the whole South an example of how to do things looking to material upbuilding.

In these statements many Southern people should find facts for serious study. The machinery of government is for the benefit of the people, and unless natural resources are developed, creating employment and wealth for the people, there will be no foundation on which to build for higher things. It is essentially important, therefore, that State governments should center their

attention largely on bringing about the fullest utilization of natural advantages. West Virginia is unique in this respect. For many years her Governors have been sound business men who have been the State's leaders in development work and in attracting capital to the State. Others of her public men, like Senator Elkins and ex-Senator Davis, have become the largest individual investors and developers of the State and have brought in of outside capital many millions for the building of railroads and the opening of coal mines.

Has any other State been so fortunate? Where are the public men in the State or national offices who, with a few exceptions, have really been taken seriously by outside or by local capital in State development work in the South? What other Southern State can duplicate West Virginia's record in that particular? In an address before the Fifth State Development Convention at Winchester, Ky., Mr. Phenis presented this phase of the situation to the people of Kentucky and clearly pointed them to the reasons why that State, marvelously blessed as it has been by nature, has lagged so far behind in material upbuilding. Who can read the political history of Kentucky within late years without wishing that the people of that Heaven-favored Commonwealth would, like the people of West Virginia, make business, broad State development, their politics instead of making their business in life, as many have done, the kind of politics to which must be attributed many of the happenings that have disgraced the State. Kentucky, great in potentialities, great in the character of its best people, great in what it has done in the past, awake to the glorious possibilities within your grasp! And not Kentucky alone, but every other Southern State.

Advertisements of Southern localities offering special advantages for the location of manufacturing enterprises will be found on pages 72, 73 and 74.

SOUTHERN BREADSTUFF EXPORTS.

During the first nine months of the present calendar year the value of exports of principal articles of breadstuffs at 23 of the leading ports of the country was \$130,607,719, an increase over the same period last year of \$43,601,654. Of this increase more than 63 per cent. was at six Southern ports, the figures for individual ports being as follows:

Districts.	1905.	1906.
Baltimore.....	\$9,640,698	\$18,623,400
Newport News.....	3,506,343	7,523,346
Norfolk and Portsmouth.....	609,075	2,387,075
Galveston.....	3,338,359	11,139,694
Mobile.....	2,234,482	2,000,359
New Orleans.....	9,557,786	14,861,626
Total.....	\$28,876,743	\$56,535,470
All ports.....	\$87,006,065	\$130,607,719

At the six Southern ports the increase in value was from \$28,876,743 to \$56,535,470, or by \$27,658,727, equal to 95.7 per cent., while at the 17 other leading ports the increase was from \$58,129,322

to \$74,072,249, or by \$15,942,927, equal to 27.4 per cent.

A WEST VIRGINIA ARTERY.

Within a few days a party of Baltimore capitalists, financiers and business men will make a trip over the recently completed Coal & Coke Railway from Elkins, W. Va., to Charleston, the capital of the same State. Their purpose is to inspect the line and the territory through which it runs. The traffic of the railroad is well indicated by its name, and the gentlemen who compose this excursion party will see much of an enlightening character concerning the riches of West Virginia. They will go from Baltimore over the Western Maryland and the West Virginia Central lines to Elkins, and thence a few miles to the point where the Coal & Coke connects with the Central, where their inspection will begin.

On other pages of this week's issue of the MANUFACTURERS' RECORD is published an interesting story of the Coal & Coke Railway. It is a project of ex-Senator Henry G. Davis, and goes through the heart of West Virginia. The Charleston end of it was formerly known as the Charleston, Clendennin & Sutton Railroad, a line 64 miles long, which was purchased by Mr. Davis and associates, who built an extension of 100 miles through a rich coal region to a connection with the West Virginia Central at Leiter, near Elkins. This extension was finished and put in operation for freight service this year, but it is proposed to soon operate passenger trains over the entire line, 175 miles long, and to also establish a through train service between Baltimore and Charleston.

The idea of building the Coal & Coke Railway and of providing a new route from the Kanawha river to the Chesapeake bay is characteristic of ex-Senator Davis, whose mind has never ceased to be active with plans for the railroad development of his State. The building of the West Virginia Central, which is now owned by the interests that control the Western Maryland, of which it is practically a part, was the result of his foresight and boldness directed toward coal development in the Elk Garden region and subsequently at points beyond. After the West Virginia Central changed hands he took up other railroad projects that he had contemplated for some years and proceeded to develop one of them, the result of which is now visible in the completed Coal & Coke line. Starting at Leiter, this road opens up a new country through the highlands and finally connects with the old Charleston, Clendennin & Sutton road at Gassaway, going over the latter line to Charleston.

A great future is doubtless before this railroad. It traverses some of the richest coal territory in West Virginia, and it can be expected that many mines will be opened therein, now that transportation facilities are provided. The building of numerous coke plants is also to be anticipated, for the coals of this region yield the finest results when con-

verted into coke. Considerable lumbering may also be looked for, as the country along the line is rich in a variety of woods. With a region so full of natural riches surrounding it the Coal & Coke Railway will no doubt soon develop a large business, the magnitude of which will seem to be boundless. It will be able to carry coal both east and west—to Charleston for transshipment to ports of the Great Lakes, and, in connection with the West Virginia Central and the Western Maryland, to Baltimore for shipment by vessels to any port in the world.

KILKENNY ECONOMIES.

The flurry over the decision of the Interstate Commerce Commission as to notice of change in export rates on cotton points to the strong possibility of interesting developments in the near future, which, the congressional campaign being over and the people of the country having time to consider their real interests, may be sufficient to induce Congress to modify its recent railroad rate regulation amendments in the direction of sanity and of safety for the country's welfare. If the rate bill fathered by Mr. Hepburn and said to have been based upon extracts from about 16 other bills on the same subject has, after its transmogrification in the Senate and in conference, any real fundamental principle or any actual general purpose, it is to bring about "uniformity" of rates for transportation with the provision that the rates shall be "reasonable" and compensatory to the carrier. The effort to give status to the conflicting ideas, notions, claims, etc., involved in this general purpose implies an impossibility of one general rule's applying to all cases or to all common carriers. Hence, a liberal discretion is vested in the Interstate Commerce Commission to change the statute to meet these varying conditions as they may be presented. The cotton-rate matter was only an early demand for a special privilege in favor of cotton, to be granted by the Commission under its discretionary powers. It presented the spectacle of the cotton trade finding itself compelled to beg a national railroad commission for the enjoyment of the rightful freedom of commerce. Of course, wheat, corn, provisions, metals, minerals, dairy products, timber, etc., and perhaps passengers to foreign ports may be expected likewise to find mandatory reasons for making similar requests.

If the Commission can change the rule of uniformity as to one section or as to one product, it can do so as to any other or all other articles of commerce. If it can give the nursing bottle of compensation to one railroad, it must give it to all, or else it will be justly accused of being an arbitrary stepmother to all industries and of not failing to gratify its preferences.

These suggestions are made as showing the impossibility of expecting uniform justice on the part of a tribunal which has no uniform mode of action, but which may substitute its discretion

for the law as caprice or a sense of justice may happen to dictate. If Col. William J. Bryan had the sagacity and tact to say "The railroad rate regulation amendments to the Interstate Commerce Act contain the full measure of the doctrine of Government ownership of railroads and all their provisions rest upon that sole foundation," he would compel honest supporters of the amendments to confess those facts. If there should be a demand for a law with the binding provisions of the rate bill, but based on a different confessed principle, promoters and supporters of the rate bill would be turned "neck and heels" into the mire. The leading section of such a law would read as follows:

No railroad shall engage in the transportation of commerce among the States except upon the following terms and conditions.

The terms and conditions would be such as Congress might choose to impose, provided they would not be in restraint of commerce. To regulate commerce is not to restrict, prohibit or destroy it. This would leave the ownership of the railroads where it is and would confine the limitations on commercial traffic to transportation, which is as far as Congress, under the Constitution, has the slightest legal power to go in dealing with this subject.

It is possible that the sober second or third thought of the American people may determine that railroad rate regulation as it is provided for at present is calculated to produce a Kilkenny-like situation in American economies.

TO BUILD UP EXPORTS.

In an interview with the *Register* of Mobile, Ala., Mr. W. L. Henderson of the land and industrial department of the Southern Railway and the Mobile & Ohio Railroad has suggested that as a means for enlarging the export trade of the city a number of woodworking establishments be built there, especially one to make boxes and crates and other such light-weight packages necessary in the handling of goods of various kinds intended for foreign shipment, and has expressed the belief that such a plant would supplement greatly the trade of wholesale produce merchants and the fruit and vegetable growers in the neighborhood of Mobile. This suggestion, in various adaptations, is worthy of consideration by the progressive citizens of more than one Southern port, where the commercial status may be seriously affected by the shifting of the centers of production of goods once dominating in exports there or by changes in transportation systems. In spite of certain natural advantages, such as ease of approach for vessels, safety of harbors, etc., the trend of long-enjoyed trade away from certain ports is already manifest, even though they may still show an increasing volume of export trade. It is for farseeing business men to determine whether or not that trend is to be counteracted by the building up of new sources of commerce. The surest way to a positive answer is to be found in the creation of industries at the ports, to utilize material close at hand in the manufacture of goods that are demanded by foreign markets. It will not be wise to turn out simply products that the ambitious ports would like to sell abroad. There is already too much of that spirit in American manufacturing, so full of orders for the home market that it looks upon foreign markets as dumps, in a certain sense, for an occasional surplus of products. Profitable and enduring markets abroad for American manufactures are to be gained only in discovering the peculiar

needs of those markets and meeting them intelligently. The Latin Americas are bound to become great markets for manufactured goods of all kinds, and enterprise, energy and alertness at more than one Southern port will surely gain and hold those markets if the suggestion of Mr. Henderson be carried out upon broad lines.

WHERE OUR RAILROAD REPORTS EXCEL.

The wonderful completeness of our railroad reports, several of which have recently been published in part in the *MANUFACTURERS' RECORD*, is, perhaps, hardly appreciated by Americans who have become more and more accustomed to full and explicit publications concerning the earnings and management of our great transportation companies. Take, for instance, those reports of some of the railroads in the South; they display not merely the gross and net results from operation, besides other figures relating to the financial side of the companies, but in addition they present a mass of data about the properties, their employees, their equipment, their improvements and the industrial development of the regions through which their lines operate. All this valuable information, so useful to the officers and employees of the different railroad companies, is also of great service to their stockholders, to investors and, in fact, to the general public. The amount of data given in some of the reports is immense. Much of it—indeed, practically all that is of general value—is collected and preserved year by year in the publications of the Interstate Commerce Commission.

This disposition of American railroad companies to present to their shareholders, and, indeed, to the world, a comprehensive view of their respective conditions and progress is a matter of highly favorable comment in an article from the pen of Mr. W. R. Lawson in the *Financial Times* of London, England. Remarking upon the threatened labor difficulties of the railways in Great Britain, he says that shareholders of the companies are in absolute darkness as to the changes of success or failure. He continues:

This is another example of how the British railway shareholder suffers from the inveterate prejudice of his directors against definite information as to the conduct of railway business. If he is told little about the details of earnings and working expenses he is not allowed even a glimpse of the relations subsisting between the railways and their servants. Their duties, their working hours, their rates of pay, their conditions of service are all mysteries to the average shareholder. He could not even make a wild guess as to their total number. In every other commercial country official information is furnished on all these points. It is in some cases, the United States, for instance, so copious and well digested that any intelligent person may draw his own conclusions from it. He could judge for himself as to the merits of any dispute like the present which might be forced on the railways.

Had this labor demonstration been directed against the American railroads the stockholders could have ascertained at once from the reports and statistics of the Interstate Commerce Commission how many men and how much money were involved in it. On both these vital points not only our railway shareholders, but our railway directors, are more or less at sea. Each director may know something of the figures of his own line, but the railway service of the country as a whole is probably as great a mystery to him as it is to us. * * * No railway company has had an intelligence department specially engaged in the study of these questions. They are among the problems of railway administration which have so far been left, like the British army, to take care of themselves. And they will have to chance it until directors and managers get tired of

muddling along in the dark or until shareholders lose patience and insist on having some statistical light admitted into managerial methods.

Mr. Lawson's comments show that British railroad men still have a lot to learn of the value of transportation methods in the United States. Several years ago decreasing profits prompted them to send delegations to America to study our railroad practice. Statistics of ton mileage, etc., were then practically unknown to them; our large freight cars and big engines were also new things in their sight. The visitors were not, however, slow to learn the object-lesson, and English railroad practice has, since their study of American methods, been more directed toward getting more tonnage behind each locomotive on their own lines. They have built larger cars and larger engines, and, while their traffic conditions do not permit of as general adoption of such equipment as in this country, greater profit has resulted from its use within suitable limits. No doubt their next move will be to adopt the full and complete style of railroad report such as is general in America. And here, it may be remarked, is at least one of the things which they do better in the United States than they do elsewhere.

THE MOB SPIRIT.

At the time of the recent riot at Atlanta a correspondent wired to Eastern papers: "The mob spirit seems to be in the air."

This statement covered the situation not simply in Atlanta at that particular time, but it covers with equal exactness the whole country. The mob spirit which is in the air may occasionally, as in Springfield or New York or Atlanta, vent its spleen in a race riot, but that is only one phase of it, and by no means the most dangerous. The young hoodlums, half-grown boys, who composed a large part of the mob, wild with the taste of blood as in Atlanta, could with but little difficulty at any propitious time and at almost any place be aroused to wreak their love of destruction upon human life or property. They had no sense of human responsibility. They were not moved by the bitterness of the spirit awakened in the men by reason of the negro outrage. They were simply an expression of the mob spirit of the country, and as such deserve far more serious thought than as parties to a race riot in Atlanta or elsewhere.

From every part of the country comes the same tale of deterioration of boys, of inability to find boys willing to work and to bear the burdens of responsibility. Here and there, of course, are found well-trained, ambitious boys who realize that honesty of character demands honesty of service; that stealing time and shirking work are practically the same as stealing dollars, boys clean of life stirred by worthy ambition to do their part in the world's affairs, boys who realize that hard work of brain or muscle, thought, action, responsibility can alone insure honesty of character, boys who realize that the old "three Rs"—reading, riting, rithmetic—are not quite so important as the "three Rs"—righteousness, responsibility, reverence. Righteousness counts for pure lives, but to this must be added a due sense of responsibility, and then there must be reverence for law and order and all that they represent in the business world as well as in the civil and religious world. To such boys there are open possibilities of honor and position and wealth such as the world never saw before. Before them lie boundless op-

portunities to be leaders among men, and upon them must rest the mighty responsibility of meeting the conditions now developing by the growth of the untrained, undisciplined, half-grown boys who help to swell every mob and the socialistic spirit, the hysterics which, sweeping over the country, endanger the sanity of the men and women of America. Yellow journalism in the press and pulpit, on the platform and in the school rants about things of which it knows nothing and cares nothing so that it can attract the rabble's cry. Men who are as densely ignorant of business as a Hottentot of the ways of the drawing-room denounce railroads and corporations generally because it is popular and they want the mob's senseless commendation—the mob which yesterday exalted a Dewey to the skies as the mightiest hero earth ever produced and which today kicks him from his pedestal without rhyme or reason; the mob which fawns and flatters today and which tomorrow would with equal lack of manhood take great pleasure in dragging through the streets to be drawn and quartered the hero of yesterday; the mob which is ever seeking something for nothing, which will sink all manhood in begging the rich for gifts to schools and bow down and worship some so-called philanthropist who gives a few paltry dollars providing his exacting, degrading terms are accepted. In their wanderings through the wilderness the Jews of old bowed themselves before the golden calf, but in these days men who ought to be leaders in school and church, men who ought to prefer for themselves or their institutions honesty, poverty or even an honorable grave rather than to sell their manhood for money, are bowing down not before golden calves, but golden jackasses.

Until these conditions are righted how can we expect to instill honor and reverence and manhood into our boys? With labor better employed at higher wages than ever before in human history, with all classes of people enjoying comforts which even the richest could not command a few years ago, with the poorest of earth who never dreamed of three meals a day flocking to our land and finding steady and profitable employment, with the hundreds of thousands of poorer mountain whites, who as a people had practically starved mentally and physically for a century or more for lack of employment, now being begged to work with pay which gives them comforts far beyond what they had ever known, with every leading daily paper in the land filled with columns of advertisements of employers almost begging for workers, men and women, the streets of towns and cities are full of corner loafers, hangers-on around saloons, men and boys who won't work, but who are being taught by press and pulpit and school teacher that the world owes them a living. Not "How much faithful, honest work can I do?" but "How little can I do and still live?" is the theory of the day. The cry of the land, from men high in the Government down to the street-corner loafer, is "work is a curse which must be shunned," and in that cry the devil hears proclaimed the falsehood which most delights the ruler of the lower world. How can we expect to make real men of our boys when everywhere they turn they hear such teachings and when they see that through every class of society, in labor unions, in Congress and in the press, the whole aim of life seems to be to live without work and to rant and rave against the men who, realizing that work is one of Heaven's best bless-

ings to man, have by toil and struggle accumulated fortunes small or large. "Destroy what labor has accomplished; make impossible any rewards for those whose ceaseless activities have enriched all mankind while enriching themselves" is the accepted doctrine of many people today, and unless there shall arise leaders who dare to stem the current, men who would rather battle to the death for the right than to receive the wild plaudits of an unthinking mob for doing the wrong and leading that very mob over the brink to utter destruction, we shall find dangerous times ahead of us.

The writer is an optimist. This world is a glorious place. Work is an unceasing delight, and everywhere "every prospect pleases," but man only is just now, if not "vile," as the old hymn says, following the false teachings of the day toward an end that means destruction of character, the loss of self-reliant manhood and the pitiable wreck and ruin of "ten thousand times ten thousand" boys and girls of this and of coming years who otherwise might be saved to the glory of manhood and womanhood and the blessing of the world.

TO SPEED SOUTHERN DEVELOPMENT.

In a letter to the MANUFACTURERS' RECORD Dr. P. H. Mell, president of Clemson Agricultural College, Clemson College, S. C., writes:

I have just received a copy of the MANUFACTURERS' RECORD, October 11, with the marked editorial, "Wake Up, South." You are doing so much for the advancement of the industrial resources of the Southern country that I desire to express to you my appreciation for this work and to say, as a Southern man, that I believe if the other papers of the South would take hold of this question as vigorously as you are doing, the country would soon "wake up" and we would begin rapidly to enter into our birthright and take charge of our own interests.

We have an ample supply of young brain power in the South, and if this force was properly developed so that the young men would be rendered efficient to take hold of the question of the development of our own resources we would forge rapidly ahead. I see no reason why we should send North for experts to do this work, and I am firmly convinced from the great demand on the part of the South Carolina youths to enter Clemson College in order to prepare themselves for industrial professions that if the people would wake up to the importance of taking the step indicated in your article our colleges would be unable to meet the demand made upon them. I have long felt that the Southern country was forging rapidly to the front in all industrial and intellectual activities, and will soon take its position in the United States in industrial lines which it occupied many years ago as a section of great wealth and refinement.

I wish to express these words of commendation to you for the articles you have written in the MANUFACTURERS' RECORD in the past and for the reason that you are throwing the weight of your journal towards the development of this Southern country.

I am not ready to say that the South has not waked up, but we are waking up in sections. Some portions of the country are now busily engaged in opening the mines and building factories, while other sections are looking on in amazement, but the country is waking up, and I feel confident that we are going to astonish the world. We have such a splendid climate, such conservative people, men who are not led off by theories, but who are ready to take earnest hold of any question that looks to the betterment of the people. It seems to me, therefore, that the only difficulty in our way now is the lack of a sufficient amount of money to develop our resources. Our hills are full of the minerals needed for the development of our enterprises, the timber on the mountains and in the valleys has not been exhausted, our streams are flowing with wonderful power, and our railways are in excellent condition to transport the products of the country. I wish, therefore, to say God speed the work that you have undertaken, and I desire as one Southern man to express my appreciation of what you have accomplished.

It is gratifying to receive such a letter from a man who has for years been

in touch with Southern development of the most substantial kind, the development of the young brain power of the South, and who is in an excellent position to know just what the South needs in that particular. It is true that the hills are full of minerals, that the mountains teem with timber, that the valleys have by no means been exhausted from an agricultural standpoint and need never be, that the streams are flowing with wonderful force and that railways are in excellent condition. But none of those resources is equal to the resource in the young brain power. And yet the South has paid less attention to developing that power than it has paid to any other of its great resources. They cannot be utilized to the full, the most cannot be made of the minerals, the timber on the mountains may disappear forever instead of being maintained as a perpetual source of wealth and basis of industry, with its disappearance the promise of the valleys will not be fulfilled and railroad expansion will not keep pace with traffic possibilities unless the South turns in vigorously to develop properly the mighty force latent in its young men and women. What is going on industrially and agriculturally in portions of the South should be going on everywhere there. Not a single Southern State, notwithstanding the wonderful progress made in recent years, is realizing upon its full potentialities. Not a single one is living up to the responsibilities of the situation, especially as to the adequate support of institutions like that of Clemson College, where the willingness of young men to prepare themselves for the industrial professions is outrunning the accommodations for them. It is no wonder that men like Dr. Mell can appreciate the opportunity for the South, and they deserve the cordial and liberal support of all the people of their respective States.

Gratified as we are at his words of commendation, an inspiration to continuance in co-operation with the real educators of the South, we shall be more gratified at seeing large appropriations made by State Legislatures for the support of their technical schools and large gifts to the same end from men of the States who have gained wealth in active participation in State development and who know that even greater wealth is awaiting the young brain power of the South properly developed and made efficient.

WORKING FOR THE SOUTH.

Mr. H. C. Brown of the Mission Ridge Clay Co. of Chattanooga, Tenn., manufacturer of fire-brick and building brick, writing under date of October 9 to the MANUFACTURERS' RECORD, says:

"I must express my 'sense of understanding' of the work you are doing for the South. While I know that it is greatly appreciated, I doubt if it is appreciated to the full extent by those who are the most benefited. This company is a subscriber to your paper, and we make no cheap effort at flattery when we say that it is the most valuable publication which we receive."

Mr. A. J. Leitch, president and general manager Continental Blow Pipe Co., Lexington, N. C., writes:

"The writer has been using your information columns for the past 10 years as the means of keeping posted on the development of the new industries in this territory, and has found it generally correct and of great value in securing business in our line."

Mr. W. R. Crompton, general manager Ohio River & Western Railway, Woodsville, Ohio, writes:

"At the suggestion of Mr. Frank S.

Hambleton I write you relative to the matter of advertising in your paper. This company had some 35-pound relaying rails for sale suitable for coal tracks or light logging roads. I endeavored to make a sale of these rails by circular-letter to the different coal companies and lumber companies throughout Ohio, Indiana and West Virginia, but failed to even get a bid. Mr. Hambleton was here and he suggested that I put an ad. in your paper, which I did, and was much surprised to find that within a week after its publication I had probably 30 replies and sold the rails. This demonstrates that for this class of advertising your paper is certainly a success."

OGDENISM ON GUARD.

In connection with an announcement some weeks ago of a plan for a meeting in Richmond of 2000 school trustees and supervisors of Virginia, it was officially stated that the Department of Public Instruction of the State had "been worked to the verge of collapse in trying to give a practical turn to the enthusiasm for education now active in the country districts of Virginia," and that "it may seem strange to say that this very enthusiasm is a source of anxiety, and if not properly and practically directed it will result in a great waste of time, money and effort." In view of the fact that very little of practical value for the advancement of real education can be expected from a gathering of 2000 school officials and of the further fact that the meeting now set for November is to be closed under the auspices of a grandchild of the Ogden Movement for "education in the South," it may be suggested that the acceleration given to "the enthusiasm for education" by the proposed rally may mean something more than "a great waste of time, money and effort." Remnants of the Ogden phalanx in Virginia who might be apprehensive that the enthusiasm may have an effect directly contrary to their expectation should possess their souls in patience in knowledge of the large part on the program of the meeting to be taken by at least eight "unofficial statesmen," including Doctor Robert C. Ogden, with whose careers as promoters, apologists, proteges or employees of the Ogden Movement students of that episode are well acquainted.

CONCRETE IN THE SOUTH.

In a letter to the MANUFACTURERS' RECORD Mr. M. Goldenberg, manager of the sales department of the Trussed Concrete Steel Co. of Detroit, Mich., says:

"We note with interest in your issue of October 4 the editorial explaining the advantage which the South has over the North in its building operations. This advantage is not at all exaggerated. It is one of the most important assets which the South possesses, and we wish to congratulate you upon bringing same before the public. A medium such as yours can, by impressing the fact upon the manufacturers of the South, save them a fabulous sum of money in the course of a few years."

"The manufacturers of the North are today paying a large sum of money in excess of the cost of their buildings in order to rush them through in a certain given season. The Southern manufacturers, on the other hand, are reaping the advantage of the experience of the Northern constructors, and, aside from this, can build their factories much better and much cheaper."

"It stands to reason that a large construction organization must be kept together in order to be of any service. However, if this organization cannot be used on account of the weather, then there is additional expense which must be charged to the factories that can only be built in a certain few months. Rather than have this a total loss we, of course, would be

glad to take Southern contracts at a very low rate."

COLUMBUS INDUSTRIAL SCHOOL.

Illustrative of the old adage that Providence helps them who help themselves is the list of donations to the Secondary Industrial School of Columbus, Ga., published in the *Enquirer-Sun* of that city. The gifts to the school, which is expected to be ready for occupancy by November 1, are from citizens of Columbus, former residents and manufacturers in distant cities. Mr. G. Gunby Jordan and Mr. R. C. Jordan of Columbus gave nearly two and a-half acres of land, valued at \$10,000, for the site, and Mr. G. Gunby Jordan also gave \$5000 for the building and \$500 of the \$2200 given individually for the equipment by the board of school trustees of the city, of which he is president. Other donations were, for the building, George F. Peabody of New York, \$10,000; John McIlhenny of Philadelphia, \$5000; the board of trustees of the public schools, \$15,000; the city of Columbus, \$15,000; Frederick Victor of New York, \$1000, and the General Fire Extinguisher Co. of Providence, R. I., a complete outfit valued at \$5000, and for equipment, in cash, William C. Bradley of Columbus, \$500; Georgia Home Insurance Co. of Columbus, \$500; Eagle & Phenix Mills, Columbus, \$500; the board of school trustees, individually, \$2200; J. T. Cooper of Columbus, \$200; Georgia Lumber Co., Columbus, \$200, and J. D. Massey, Columbus, \$30, and in equipment, the Dudley Sash, Door & Lumber Co. of Columbus, the Columbus Showcase Co., the William Beach Hardware Co., the Bush-Phillips Hardware Co., the Methvin Hardware Co., the Golden Foundry & Machinery Shops, the Columbus Power Co., the Wolfson Card Co., the Perkins Hosiery Mills, the Gaslight Co. and C. Schomberg, all of Columbus; the Republic Belting Supply Co. of Cleveland, Ohio; the New York Leather Belting Co. of New York, the Prentiss Vise Co. of New York, the Pike Manufacturing Co. of Pike Station, N. H.; the General Electric Co. of New York, the Whitman & Barnes Manufacturing Co. of Syracuse, N. Y.; Nathan Isidor and Oscar Strauss of New York city, the Buffalo Forge Co. of Buffalo, N. Y.; the Easton-Burnham Machine Co. of Pawtucket, R. I.; the Entwistle Company of Lowell, Mass.; the Metallic Drawing Roll Co. of Indian Orchard, Mass.; the Southern Bobbin, Spool & Shuttle Co. of Greensboro, N. C.; H. A. Metz & Co. of New York, the D. A. Tompkins Co. of Charlotte, N. C.; the Crompton & Knowles Loom Works, Worcester, Mass.; the Draper Company, Hopedale, Mass.; the Lowell Machine Shops, Lowell, Mass.; the Kitson Machine Co., Lowell, Mass.; the Saco-Pettee Machine Shops of Newton Upper Falls, Mass.; F. A. Lazenby & Co., Baltimore, Md., and the American Hosiery Co. of New York.

THE COTTON MOVEMENT.

In his report for October 12 Col. Henry G. Hester, secretary of the New Orleans Cotton Exchange, shows that the amount of cotton brought into sight during 42 days of the present season was 1,782,128 bales, a decrease under the same period last year of 310,766 bales; the exports were 828,833 bales, a decrease of 950 bales; the takings were by Northern spinners 167,478 bales, a decrease of 24,347; by Southern spinners 300,966 bales, an increase of 5719 bales.

Since 1900 the assessed value of property at Meridian, Miss., has increased from \$5,205,701 to \$9,459,680, or by more than 80 per cent. Of the increase, \$1,701,619 has been made since 1905.

Reports state that the Coosa Manufacturing Co. of Piedmont, Ala., will build an extensive addition to its plant.

A SELF-MADE AMERICAN ENGINEER.

J. G. White, self-made engineer, organizer and financier, is the subject of an editorial biography that appears in *Cassier's Magazine* for September. Mr. White's life is chiefly interesting to readers of the **MANUFACTURERS' RECORD** on account of the activities of his company in the Southern field. Mr. White has also carried out important street-railway contracts in Baltimore, Md.; in Washington, D. C., and in other parts of the South. At present J. G. White & Co. are busy on important railway work in Virginia and North Carolina, notably the Tidewater Railroad, the Virginia & Carolina Coast Railway, the Raleigh & Pamlico Sound Railway and the Pamlico, Oriental & Western Railway. The company has almost completed a huge power plant for the Potomac Electric Co. of Washington, D. C., and was only a few days ago appointed consulting engineers to the United States Government in connection with the new power plant for the congressional buildings. The biography mentioned is interesting chiefly in showing what tremendous potentiality has been attained by a boy who has no more advantages than the average youth of today. Following are extracts from the sketch:

James Gilbert White was born at Millroy, Pa., in 1861. His father was a clergyman, born in Western Pennsylvania of Scotch, Irish and English stock. He was a man of high moral principles and living, more than usual intelligence, liberal ideas and sturdy, independent thought. In 1877, when he was 16 years of age, young White entered the Pennsylvania State College, taking the course in arts and graduating with the degree of A.B. in 1882. During the summer vacations of his college course he devoted a large part of his time to such engineering work of one kind or another as would give him a better appreciation of his college work and enable him to more thoroughly understand and appreciate the bearing of his scientific studies upon industrial life. His most extensive summer work was done in 1881, when he spent considerable time with a party engaged in surveying in Northern Pennsylvania, and later in the civil engineering department of the Cambria Iron Co. of Johnstown, Pa. After receiving the degree of A.B. he returned to the Pennsylvania State College and concentrated his time upon civil engineering. Immediately thereafter he tested his newly-acquired knowledge by putting in a summer on the reconnaissance and location surveys of a steam railroad in Central Pennsylvania.

In 1883 he entered Lehigh University with the intention of studying mining engineering. While there and during the winter of 1883-1884 he became especially interested in electrical investigations, and finally determined upon making electrical engineering his lifework. His final ambition, however, was not at once open to attainment. To his mind his groundwork in both practical and theoretical engineering had not been made complete.

In 1884 Mr. White entered upon his final work as a student in college. After the summer spent in Johnstown he entered Cornell University, specializing in electrical engineering and physics.

His work while at Cornell was highly gratifying and successful; in fact, he received a fellowship in electrical engineering, followed by the degree of Ph.D., conferred at the commencement of 1885.

In a measure Mr. White may be judged fortunate in having accepted, after his graduation from Cornell, the position of instructor in physics in the University of Nebraska. It led him for two years to give his attention to what was, in a great part, a careful review of much of the work

he had gone over while in college, with the added value of the constant suggestion which comes to the instructor from his contact with the inquiring minds of the students. It is not astonishing, however, in view of the disposition he had previously shown to make excursions into the field of practice, that he finally, in the spring of 1887, joined forces with others in originating the Western Engineering Co.

After the initial work in Nebraska and other Western States had developed considerable proportions overtures were made by Eastern interests which resulted in the Western Engineering Co. being sold to the Edison-United Manufacturing Co., and Mr. White came to New York to take charge of the department of electrical railway installation, covering the entire United States, in the consolidated organization. However, the formation of the Edison-General Electric Co. followed soon after Mr. White's association with the Edison-United Manufacturing Co., and Mr. White resigned to develop an engineering and contracting business of his own under the firm name of J. G. White & Co.

In 1900, after having carried out from the New York office and by several previous trips to London a considerable amount of engineering in Australia, Mr. White established an office in London, organizing for this purpose the English company known as J. G. White & Co., Ltd.

During his engineering experience Mr. White has supervised the design and construction of a large number of powerhouses, both steam and water-driven, as well as complete systems of track and overhead construction, bridges, electric-light and railway distribution circuits, while a number of the more important installations have received his personal attention. Among these may be mentioned the Buffalo-Niagara Falls Street Railway and the transmission line from Niagara Falls to Buffalo. The former was built in 1895, and was one of the first high-speed interurban lines in America. It is believed to have been the first road to use the four-motor equipment with series-multiple control, now so commonly adopted for interurban service.

The transmission line to Buffalo was probably the first in America designed to carry so much as 5000 horse-power on one set of wires, and consequently presented some new and interesting problems.

Work in progress under Mr. White's general direction also includes the construction of a large number of important buildings in Great Britain by the Waring-White Company, Ltd., of London. These buildings include the Mercantile Marine Building, Ritz Hotel and the Waldorf Hotel in London and the Royal Cotton Exchange in Liverpool.

In South America the activities now directed by Mr. White include the construction of rural tramways at Buenos Ayres, in the Argentine; the construction of a tramway system for Montevideo, in Uruguay, and the reconstruction of the city tramways and the erection of a modern power plant at Para, in Brazil. The White companies are also engaged in the construction and operation of electric-light and tramway properties in Monterey, Mexico; Havana, Cuba, and San Juan, Porto Rico. The construction of the Virginia & North Carolina Coast Railroad, which extends from Charleston, N. C., to Norfolk, Va., is included in their contracts.

The White organization consists of a number of companies independently organized but closely allied. Of these J. G. White & Co., Inc., of New York may be regarded as the parent company. The development of allied companies has reduced the field

of activity of this company until now J. G. White & Co. of New York are engaged in an engineering, contracting and operating business restricted to the United States and its dependencies, Mexico and Central America.

J. G. White & Co., Ltd., of London are carrying out a variety of engineering and contracting work in parts of the world other than Canada, the United States, Mexico, Central America and Chili. The field in Chili is covered by the Chilian Contracting Co., of which Mr. White is president. The Waring-White Company of London is responsible for the construction of the fine modern steel structures erected on modern American building lines which have previously been referred to.

In Canada the field is covered by the Canadian White Company of Montreal. This company is very successfully inaugurating a general engineering business in the Dominion of Canada.

IN SPITE OF REVOLUTION.

Trade Activities in Cuba and Russia Continue.

Indicative of the wide circulation of the **MANUFACTURERS' RECORD** and of the fact that, despite revolutions, business is being actively pushed in Russia as well as in Cuba, two letters received in the same day, one from Russia and one from Cuba, will prove of interest to our readers. They are as follows:

"I am now interested in the following articles of American manufacture: Engines (motors) for alcohol, small dynamos for electric light, small ice-making plants. All of these articles must be of the greatest possible capacity, for my intention is to install small equipment in small settlements in the interior of the island where the density of population is not sufficient to support an ice-making or electric plant on a large scale. In alcohol motors and dynamos I wish those from the smallest models up, say beginning at 10 lights of 16 candle-power each. In ice machines I also desire small models, beginning with a capacity of one-quarter of a ton. The motors are to be used in connection with the dynamos.

"Not doubting your ability to give me the information I desire, I sign myself,

"R. FERNANDEZ,

"38 O'Reilly Street, Havana, Cuba."

"As your journal is very widely circulated among manufacturers, I should like very much to place before you some remarks concerning South Russian trade in American products. In Southern Russia there is a most active demand for agricultural machinery, such as reaping, mowing and threshing machines for grain, grass and clover (Victor, New Birdsall, etc.); all are accepted, though some find limited sale. Steam threshers, cultivators and special sowing machines are all in demand. Why mowers, reapers and harrows are so well established here is attributable to the fact that the manufacturers in this line have no loss and give no credit, for the reason that they have their own employees and mechanics here in Russia. The former make sales and push the business right along, whilst the latter set up the machinery and educate and tutor the Russian workman so that he can soon go ahead for himself upon a sound and correct basis.

"Thus many an American manufacturer could find a good outlet in Russia for his products if he would push them in the same energetic way and establish a branch here which could deal directly with the farmers, so that these would not be compelled to purchase through intermediaries. It is a fact that all the proprietors greatly prefer buying from the makers rather than from dealers. As soon as established order reasserts itself business in farming im-

plements will be lucrative. Technical machinery is indeed even now brought from America, but the consumption in relation to German and English apparatus is very unimportant. A good and a very profitable investment for American manufacturers would be to establish their own saleshouse here in Kiew and to put on sale therein only American products. To this end a certain number of well-to-do factories ought to unite as a company or corporation, selling all the products of the united concern under one roof.

"I am firmly convinced that such an undertaking would be a brilliant success. Naturally such an enterprise would have to be suitably located and directed, and at the same time energetically pushed. Kiew is the very place to which all dealers in South Russia come, and where all the railroads center, and therefore the most suitable place for such an undertaking. The following products would go very well in a business of that kind and would find ready sale: Agricultural implements, steel products, building supplies, locks, ice machines, novelties in any line, and especially such as are not affected with a high duty; also electrical supplies, belts and belting, technical armatures. If, now, any factories are willing to undertake a business of the kind described, then I would be ready to come to America at once in order to talk over the matter and explain everything clearly. Naturally I should expect the manufacturers to bear the expenses of my journey. Trade in South Russia is by no means so bad as the foreign journals say it is.

F. WIEGAND.

"Kiew, Russia."

TEXAS CITY'S DRY-DOCK.

Plans Completed for It and Accompanying Plant.

Some months ago the **MANUFACTURERS' RECORD** referred to the announcement that R. P. Clark and associates of Galveston, Texas, had decided to build a large dry-dock and accompanying plant at Texas City. During the week it has been stated that arrangements have been completed for the enterprise. Plans and specifications have been prepared by the Duluth (Minn.) Engineering Co. They call for the construction of a dock 600 feet long, divided by a gate which will provide practically two docks, the first with a length of 325 feet and the second 250 feet. The top width will be 90 feet; smallest bottom width, 68 feet; depth, about 25 feet; 21 feet over the sill at ordinary tide. The entire dock, excepting the gates, will be built of concrete, about 50 per cent. to be reinforced. Some 25,000 cubic yards of concrete will be formed. Near the dock will be erected a power-house and a pumping station having two centrifugal pumps with a capacity of 60,000 gallons per minute; also a machine shop and foundry. A plant for electric lighting and a system of water supply for fire protection will be connected with the power-house. The shops will include a plant for compressed air with a capacity of 750 cubic feet. This graving dock, with its accompanying facilities, is estimated as to cost about \$400,000. In connection with the establishment of the plant a channel will be dredged to a depth of 25 feet, 1200 feet long, to the mainland, and a bulkhead will be constructed. The plant will provide facilities for Galveston and Texas City, which is practically a suburb of the former city, for which there has been great need. It will be of sufficient size to accommodate the largest vessel that has heretofore made the port. Mr. Clark and his associates intend to incorporate a company for the purpose of building and operating this enterprise. They anticipate beginning construction work within a few weeks and having the plant completed by next June.

NEW TRUNK LINE THROUGH WEST VIRGINIA.

Importance of the Coal & Coke Railway to the State and to the Country.

[Special Dispatch to Manufacturers' Record.]

Charleston, W. Va., October 17.

Through the completion of the Coal & Coke Railway, of which Hon. Henry G. Davis is president, and the construction of a connecting link between Gould's West Virginia Central & Pittsburg at Cumberland and the Western Maryland at Cherry Run, Baltimore and the Atlantic seaboard are given a new trunk line that means much for the development of the trade of that section, while all of central West Virginia is provided with outlets to the East and the West never before possessed, so that there will be opened up and developed a portion of the State rich in coal and timber resources which has heretofore been shut off from the outside world. Although these new lines were completed some time ago, so that trains have been run and freight traffic carried over the whole new system, yet no formal inauguration of the new trunk line has as yet occurred, and it will be some further time before through passenger trains with Pullman sleepers are in operation between the termini of Baltimore and Charleston.

But because the lines have been completed and on account of the importance of the new trunk road, there is to be a public recognition of the enterprise given in the near future in the shape of a special trip over the line by interested officials and public men, and at the Charleston end of the line there is to be a reception and banquet to the visitors tendered by the Charleston Chamber of Commerce. The trip is to be made at the instance of Mr. Davis, who is providing a special train for the occasion, and as his guests there will be Mr. George J. Gould, Mr. F. S. Landstreet and other railway officials, a number of bankers and financiers of Baltimore and representatives of the Baltimore press. The start will be made from Baltimore on October 24, and the evening of that day will be spent at Elkins, the home of President Davis, and the eastern terminus of the Coal & Coke road. The next morning the trip to Charleston will be completed, and in the evening of the 25th the reception and banquet will occur.

Charleston has long been desirous of showing Senator Davis special honors, for not only is the Coal & Coke Railway largely his in inception, construction and present ownership, but he is also so greatly responsible for so much of the entire State's growth and fame that with propriety he might be called the Father of West Virginia development. Besides that, Senator Davis has placed Charleston under a personal obligation of lasting gratitude through his donation of a block of ground and money for the Charleston Y. M. C. A. building and for the location at Charleston of the Davis Children's Home, an important two of the many benefactions West Virginia has received from the Senator's hands. So Charleston has been simply waiting for the Senator to say the word, and as she will be doubly glad to welcome the officials of the new trunk road at the same time, an occasion of much more than ordinary interest may be expected for the evening of the 25th.

The building of the Coal & Coke Railway and the personal activities of Senator Davis are so closely interwoven that any faithful accounts of the inception and completion of the project necessarily takes on much of the nature of biography. For newspaper files and the testimony of those who have long been associated with him show that for more than a quarter of a century Senator Davis has worked and planned for a railroad from the capital of

the State, through the unopened central section, to the seaboard at Baltimore. As not only Senator Davis, but both his parents, were born in Maryland, not far from Baltimore, it may be that sentiment had a place in this ambition, or at least that it made, of a logical course for development to take, a labor of love for him.

Senator Davis has been so long and so prominently in the public eye that anything like a narrative of his career will not be attempted here. Brief mention of various phases of his very active life will, however, be made as illuminating the development work now in hand, what has been accomplished in the past and what

tage of a railroad that would give a direct connection, with only a few hours' travel, between the capital of the State and the north central section. Until the construction of this road a roundabout trip of from one to two days was required in getting to and from the State capital and many parts of West Virginia, and a vast territory of the finest kind of coal and timber lands was lying inactive and unused. With the completion of the line all kinds of activities have begun, and the business of the road is already very large. Coal operations, timber operations and town construction have been undertaken with every promise of a duplication of development conditions following the construction of the West Virginia Central & Pittsburg some years ago. By this earlier enterprise of Senator Davis and associates a whole string of thriving cities and hamlets has been created; in fact, every town along the road outside of Piedmont has been

road. The company itself owns 100,000 acres of carefully-selected coal lands and coal-mining rights located in Randolph, Barbour, Upshur, Lewis, Gilmer and Braxton counties. In the greater portion of these coal lands the measures are above water-level, so that the economical plan of drift mining may be employed, and the character and extent of the seams have been thoroughly established by numerous openings. No other road in West Virginia is favored with so great a variety of seams, for with the exception of the Pocahontas all West Virginia coals are found along the line—gas, splint and coking—and even cannel coal is found in such extensive deposits that two cargoes have just been shipped to Russia, in addition to the supplies being furnished the domestic market in American cities. The Pittsburg seam of coal in this district is declared by State Geologist White to be harder and freer from sulphur and other impurities than the same coal in the Fairmont and Clarksburg district, and of the upper Freeport seam, a splendid steam and domestic fuel, it is declared by Dr. White that there are in the country tributary to the Coal & Coke road some 800,000 acres, with a total of 8,000,000,000 tons of workable coal. So without going further into the details of the various seams encountered, this wholly fragmentary presentation of the situation will serve to indicate the almost limitless possibilities in the way of coal development that confront the road.

The mines on the properties of the railway company are operated and their products marketed by the Davis Colliery Co. This company itself owns about 25,000 acres of coal lands in the famous Tygarts valley, which has been under development for some time, so that it is now one of the leading mining companies of the State. At the principal plant of the company, 15 miles from Elkins, at Coalton, on the Roaring Creek & Belington branch of the Coal & Coke system, the mines have a capacity of 3000 tons of coal a day, and the 200 coke ovens a capacity of 325 tons of coke. There are also plants at Harding with mining capacity of 1000 tons of coal daily and 85 coke ovens with daily capacity of 150 tons of coke, and at Junior with 500 tons daily mining capacity and 51 coke ovens with 100 tons daily capacity. The product of these coke ovens, operated with the Freeport coal, goes East mainly, and is used by leading blast furnaces and steel companies. On the new line of road the company is constructing steel tipples at Bower, a development which will ultimately have a capacity of 4000 tons of coal a day, from what is called mine No. 40, and two miles away, at Copen, mine No. 41 is also under way. There are 15 coal-mining companies on the line of the road, operating some 20 mines. In addition to the operations of the Davis Colliery Co., owners of other mines along the road, particularly on the Elk River division, are preparing for extensive operations now that they are assured service both to the East and to the West.

In its course the Coal & Coke road crosses and for a greater or less distance runs along five different rivers—Tygarts Valley, Middle Fork, Buckhannon, Little Kanawha and Elk. Along these streams there are great possibilities for the development of traffic, both in timber and coal. In addition to branch lines already built and connections with existing lines, it will be the policy of the Coal & Coke to build extensions for the development of the country naturally tributary to its line. At its northern or eastern end the road connects with Gould's Western Maryland road near Elkins and with the Baltimore & Ohio at Belington; it also crosses branches of the Baltimore & Ohio at Sago and Orlando, and has a track connection



HON. HENRY G. DAVIS.

may yet be done; for it is interesting and inspiring to a degree to find Senator Davis "still in the saddle and pushing things," looking and acting at 83 as most men do at 60 or 50, and with no disposition or intention to pass over the reins to younger hands. Only last week he was unanimously elected president of the very virile State Board of Trade of West Virginia, and in every way in his power Senator Davis is co-operating with all the forces at work for the upbuilding of the State.

Just how far back the idea of a road to Charleston took form in the mind of Mr. Davis he himself could hardly say. But the building of railroads for coal and timber development was a project that engaged the thought and activities of the Senator from the days of his early settlement in West Virginia, and as he has always been remarkably alive to the opportunities any situation contains, he long ago saw the great importance and advan-

built up by the Davis enterprise. Besides the mining towns of Thomas, Coketon, Douglas, Davis, Hendricks, Parsons and perhaps 50 others, some of which have as many as 3000 population, there are points where other industries flourish, notably at Luke, the first town outside of Piedmont, where the West Virginia Pulp & Paper Co., now the largest company of the kind in the United States, is operating its principal paper mill. This company has pulp mills at Davis and Cass, and also has plants in New York, Pennsylvania and Virginia, in addition to its West Virginia plants, and has head offices at New York.

As the Coal & Coke road opens a particularly fine field of coal and timber lands, much of it hitherto untouched, the possibilities for development along the new line are very great. Of probable first importance is the coal. The Coal & Coke road has a total trackage of 186 miles. It is declared that there is coal of some sort along practically the entire length of the

with the Baltimore & Ohio at Burnsville. On the lower end connection is made with the Kanawha & West Virginia at Blue Creek, 20 miles of which are in operation and which is projected to extend some 20 miles farther, with ultimate plans not yet announced, although the second annual report of President Davis hazards the suggestion that the road may be built to a connection with the Deepwater. At Strange Creek the Coal & Coke connects with the Meadville & Summerville line of five miles length, and at Dunden, near Clay, with the Buffalo Creek & Gaulen road, about eight miles long, which runs into a tract of 100,000 acres belonging to Don Cameron and associates of Pennsylvania, which the owners are arranging to develop now. At Charleston arrangements have been made by contract for an ex-

trate another rich section, as at the head of Elk river the timber is practically untouched.

One of the important new developments following the construction of the road is that of Moore, Kepple & Co., who own 25,000 acres of timber lands on Middle Fork river, who are putting in a big band mill at Midvale and who will ultimately build 30 miles of standard-gauge railroad, connecting with the Coal & Coke at Midvale. The Frenchton & Arlington is another line projected to connect with the Coal & Coke at Frenchton.

The Coal & Coke road had as a nucleus the old Charleston, Clendennin & Sutton road, extending up the Elk river from Charleston for 64 miles, and the Roaring Creek & Belington road, about 25 miles in length. After the new line was com-

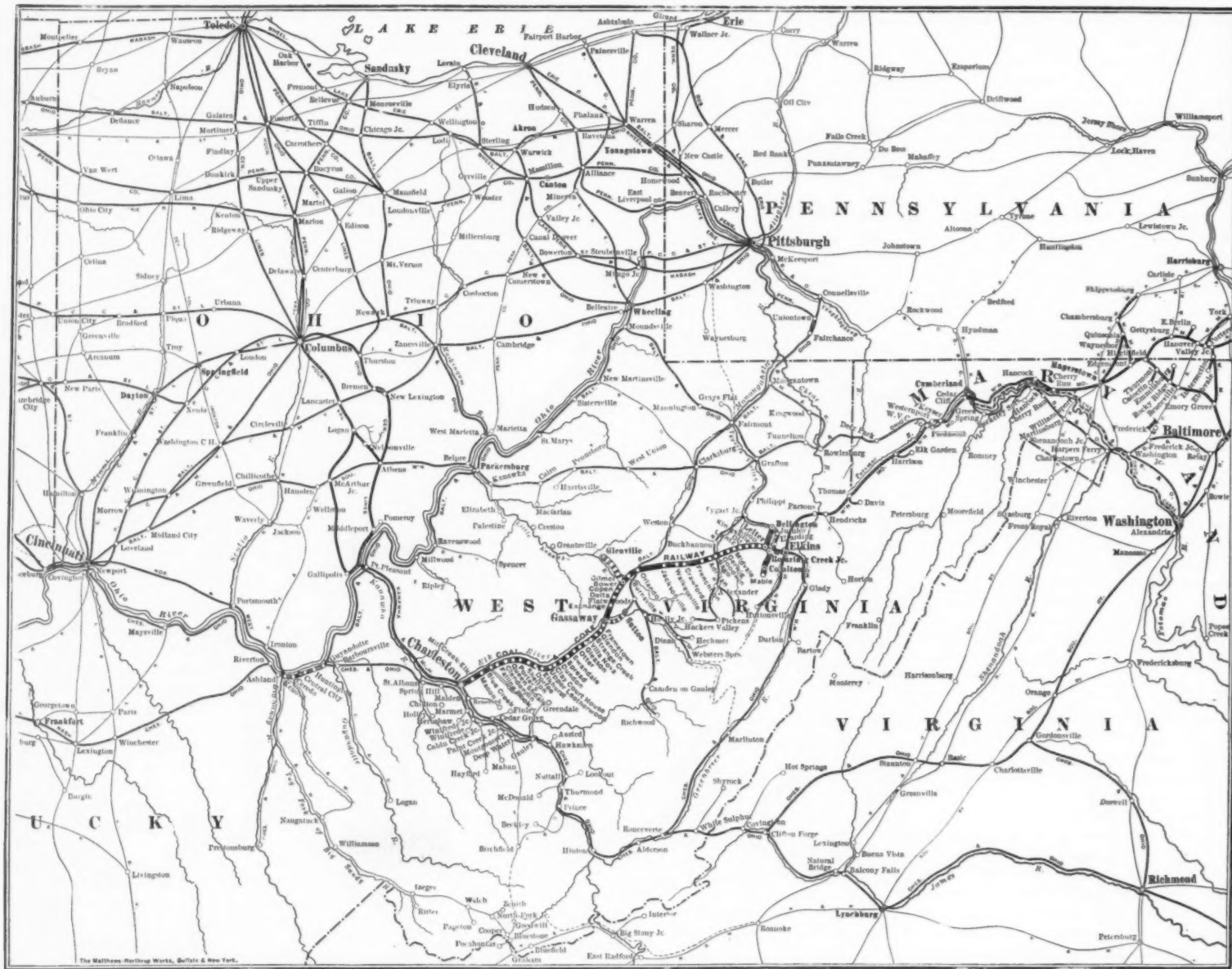
pleted it will have been \$140,000 for the year. The construction of the road is first-class, there being no trestles or timber bridges, fills being made where possible, and stone arches or girders being used for such bridging as is required. On the upper end of the line there are a dozen tunnels. So the construction has been expensive work. There is a present equipment of about 2000 cars, 18 of which are passenger coaches, and there are 30 locomotives.

Conspicuous among developments along the line of the new road is that at the town of Gassaway, midway on the company's line, where the road crosses Elk river. Here are the company's very complete and up-to-date shops, where everything is electrically driven and where there is a 120-ton traveling crane. Gassaway, about one year old, has all of 1000 population, as the

crush and ship the glass sand along the road.

The deposits of fire-clay along the line are also declared to be particularly good, and as the coke ovens require many brick, now obtained outside the State, here is considered another field for profitable endeavor, the natural gas supply being a favorable factor here, as it would also be in the making of ordinary building brick, none of which are made along the line outside of Charleston and Elkins. There are great quantities of building stone along the road accessible and easily worked. In addition to woodworking possibilities, the vast timber supplies of oak and chestnut suggest that tanneries would do very well indeed if located at some eligible place like Gassaway.

In the light of what has been accom-



COAL AND COKE RAILWAY AND ITS CONNECTIONS.

change of traffic, east and west bound, with the Kanawha & Michigan and the Chesapeake & Ohio by an arrangement similar to that effected at the north with the Baltimore & Ohio and the Western Maryland. Contemplated extensions of the Coal & Coke are already announced from Gilmer, at the mouth of Cope run, down the Little Kanawha, to Glenville, a distance of 11 miles. Glenville, in Gilmer county, is one of the few remaining county-seats in West Virginia that at present has no railroad. The company owns some land in this county, and will be serving a double purpose in building the branch line. It is also proposed to build a line from Gassaway, up the Elk river, to Sutton and a mile and a-half beyond. This line would form a junction with a Baltimore & Ohio branch line at Sutton, and would pene-

trated its operation was carried on with much difficulty, owing to the presence of numerous work trains engaged in the necessary final shaping up of cuts, fills and tunnels, so that the management does not regard that it can properly be said to have entered on its complete stage of existence, prepared for full and uninterrupted operation of its freight and passenger traffic, until the first of July, 1906. Nevertheless, the second annual report of President Davis, for the fiscal year ending June 30, 1906, shows that the gross revenues for the operation of the road during the preceding year were \$550,000, an increase more than 40 per cent. over the previous year, while the coal department earned a net profit of \$61,000 for the first full year of its existence. The report shows the net income from the railway department to

company shops alone employ 300 men. It is a very smart little city, with water-works, sewers, electric lights and natural gas, a good hotel, fine private hospital, brick schoolhouse, stone church and substantial business blocks. It is certain to become quite an important point. The hospital was built by the son of the original owner of the townsite, Senator Davis built the schoolhouse, and R. C. Kerens of Missouri and West Virginia is building the stone church.

In the territory of the road the natural resources include glass sand of the first quality. The road runs within one-half mile of gas wells at Weston, one of the famous gas sections of the State, so it would seem that glass works could be established to particularly good advantage. At present there is not even a plant to

plished along the line of the old West Virginia Central & Pittsburgh, it is considered certain that the Coal & Coke and the country tributary to it have a very important future. The city of Elkins is a shining example. When the West Virginia Central & Pittsburgh was started in this direction, about 1891, Elkins had two houses. Now it is a city of fully 5000, is the headquarters of many of the coal companies operating in this section, and also for the lumber companies which are bringing about a very notable timber development in this part of the State; it has numerous jobbing houses, woodworking establishments, foundries and machine shops, tannery, refrigerating plant, flouring mill, etc.; has water-works, sewers and other utilities, and is a very bright and growing city. On account of its proximity to their

properties, as well as because of its beautiful location, Elkins is the summer home of Senator Davis, as well as of Senator Elkins, his son-in-law, each of whom has built very handsome residences on a nearby eminence, commanding a fine view of the city and the entire valley besides.

Although Elkins may show the greatest growth of any one city as the result of this construction of the West Virginia Central & Pittsburg, yet the entire northeastern portion of West Virginia has been brought from a condition of almost primitive wildness to a degree of development that includes railroad construction, coal mining and the building of coke ovens, timber operations and town building, with resultant manufacturing enterprises as the direct consequence of the activities Senator Davis early put forth. It is a point that cannot be too frequently or strongly emphasized, it seems to me, that what the South most needs just now is men of action, and not mere weavers of fine-spun theories. All West Virginia is now the theater of a development that in extent and variety will be the envy of her neighboring States, and there are progress and prosperity and employment and comfort for thousands upon thousands as a result of the influence exerted by this one man.

Senator Davis is a remarkably interesting personality from any point of view, for by diligence in business he has more than fulfilled the sage's inspired prophecy. Not only has he stood before kings, but his intimate associates have for generations been the most powerful and distinguished of his countrymen. He has compelled respect and confidence and esteem, for with marvelous insight and apprehension of business possibilities and a diligence, industry and mastery of details that are phenomenal he has combined a fine sense of honor and a careful consideration of others' rights that have distinguished him among his fellows and given his counsel and advice weight with the mightiest. It is this combination of characteristics no doubt that has enabled him to do so much for West Virginia. An abiding and inherent courtesy advanced him from a place as brakeman on the old Baltimore & Ohio Railroad, which position he secured on leaving his native farm near Woodstock, Md., when he was 18 years old. He was passenger conductor for a while when there were only a few in all the land, and it is doubtful if any survives who was a contemporary of his. Then he was Baltimore & Ohio station agent at Piedmont, the most important way station on the road in 1853, and here he had chance to study and to know the possibilities of coal production in West Virginia. He had made investigations and purchased lands early in his career in West Virginia, and had resigned his railroad position to devote himself, together with his brothers, to merchandise, banking and developing of lands by the time of the Civil War. He was naturally sent to the Legislature, first as a member of the lower house and then as State Senator. In this contest he received every vote but one in his home town, and, with the first Democratic Legislature in West Virginia in 1870, he was chosen to represent the State in the United States Senate. He stayed there 12 years, making an impression that is warmly recognized in Blaine's "Twenty Years in Congress," and then he declined another term in spite of a continued Democratic Legislature and the certainty of a re-election, for the declared purpose of building the West Virginia Central & Pittsburg Railroad. In the Senate he had become the friend of James G. Blaine, Benjamin Harrison, Thomas F. Bayard, William Windom and many others of note, and in financial circles he was in close touch with such men as J. A. Hambleton, Wm. Keyser, Douglas H. Thomas of Baltimore and others else-

where. He had met Stephen B. Elkins, then Territorial delegate from New Mexico, early in his sojourn at Washington, and in 1876 Elkins had married his daughter and taken up his residence in West Virginia.

There is no doubt that the Davis-Elkins connection has been mutually advantageous, for it cannot be denied that Senator Elkins is a man of extraordinary influence and power or that he has been largely instrumental in making known the resources and opportunities West Virginia contains and in interesting outside capital in its development. Davis and Elkins worked hand in hand in getting the West Virginia Central & Pittsburg built and in developing the coal properties that had been acquired, in constructing coke ovens and in building up the territory along the line of the road.

In working out his plans for an ocean to ocean line Mr. George Gould desired the West Virginia Central & Pittsburg as a link. The 200 miles of road and 120,000 acres of coal and timber lands cost him \$18,000,000. By some that was regarded as a good round price. The activities along the line during the present summer have demonstrated that it was a bargain at the price. Senator Davis bought the nucleus of the Coal & Coke road immediately following the sale of the West Virginia Central & Pittsburg, and Senator Elkins invested his spare millions in the Morgantown & Kingwood road, which he is now developing to good purpose. While Senator Elkins is now interested to some extent in the Coal & Coke, that enterprise is very nearly a personal undertaking of Senator Davis. He owns the majority of stock. He was for a long time the warmest friend the enterprise could command, and he wants it to stand as a lasting monument to his faith in the section and his efforts for the development of the State.

ALBERT PHENIS.

FOR CIVIC PROGRESS.

Work of the League of Georgia Municipalities.

The practical work promoted by the League of Georgia Municipalities is indicated by the contents of the attractive volume just published recording the proceedings of the organization's fifth annual convention held last June at Augusta. They include the full text of papers and consequent discussions by Mayor Herman Myers of Savannah on "Some Injustices of our Taxing System;" by Dr. J. B. Morgan, on "Municipal Sanitation—Hints as to How to Keep the Smallest Cities and Towns Clean and Healthy;" by Mayor L. H. Chappell of Columbus, on "The Improvement of Waterways;" by Mayor J. A. Sims of Richland, on "Vagrancy and Lawlessness in Cities and Towns;" by Commissioner of Public Works Nisbet Wingfield of Augusta, on "Municipal Improvements;" by Mayor M. R. Ousley of Valdosta, on "Fire Departments;" by Recorder N. R. Broyles of Atlanta, on "Juvenile Courts," and by Mayor H. P. Colvard of Dalton, on "Improvement of Roadways in Municipalities Leading to the Courthouse."

The officers of the league, in which more than 100 cities and towns are represented, are Mayor L. H. Chappell of Columbus, president; Mayor Herman Myers of Savannah, Mayor E. M. Smith of McDonough, Mayor T. W. Cochrane of Barnesville and Mayor J. A. Sims of Richland, vice-presidents, and Mayor Bridges Smith of Macon, secretary and treasurer. The league will meet at Athens next year.

The Progressive Union of New Orleans is publishing an official bulletin called *Get Busy*, with Mr. M. B. Trezevant, editor, and E. D. Burrows, associate editor, designed to increase the interest of the association and to add to its membership.

THE COMING STATE OF OKLAHOMA.

[Special Correspondence Manufacturers' Record.]

Oklahoma City, October 12.

Oklahoma City is, perhaps, one of the most wonderful examples of rapid, solid and permanent municipal development known to the world. Only a little over 17 years old, she stands today a modern up-to-date city of not less than 40,000 people, and of this population the recent directory shows that full 5000 was acquired within the past 12 months. The city is not only metropolitan, but cosmopolitan. She has every public utility enjoyed by the most favored cities of any of the States, and it is not stretching the truth to say that these utilities are more perfectly and scientifically constructed than are those of a majority of the older cities, and render better service. In proportion to population, possibly, representatives of as many different nationalities can be found upon her streets and in her different branches of trade, labor and commerce as in any other city.

While Oklahoma City's progress from that memorable day, April 22, 1889, when the sun rose on a townsite possessed of not one legitimate citizen and set upon a town of 3500 bona fide inhabitants has been steady, her greatest progress and most solid development has been made within the past six years.

To speak in detail of the transformation of the old town into the new, the merking of the new town into a city and of the solid, beautiful and permanent improvements that have been made in, the time mentioned would require more space than could well be spared, and, after all, it would probably prove uninteresting to the busy reader of today, who has only time to skim over summaries and compare totals. Suffice to say the man who looked upon Oklahoma City six years ago and looks upon it for the first time today since then would hardly be competent to trust his own senses—during his absence either magic or witchcraft must have been at work.

During the period beginning June 30, 1905, and ending June 30, 1906, Oklahoma City has completed the following buildings: County courthouse, cost \$140,000; county jail, cost \$40,000; new fire station, cost \$1500, and three new schoolhouses, cost \$75,000. She has nearly completed extension to water-works, costing \$240,000, giving 50 miles of mains, with a total valuation of \$600,000. She has 53.3 miles of storm and sanitary sewers, costing \$475,000. To her electric system 1500 horse-power has been added, and the city now has in service 30,000 incandescents, 490 arcs, and in addition furnishes power to 199 consumers. Gas mains were extended 10 miles. The street-railway tracks were extended two miles, while six miles are now under construction, giving a total of 25 miles. Street paving was extended 5.5 miles; alley paving one-third mile, now under contract 5.1; cost of paving already complete, \$1,000,000; total mileage, 20.7. On June 30, 1905, there was 68 miles of brick and granitoid sidewalk, costing \$179,520; built during the year 26 miles, costing \$68,640; under contract five miles, to cost \$13,200. The new buildings constructed during the year totaled a cost of \$1,725,246.

In new industries the city added from June 30, 1905, to June 30, 1906, canning factory, cracker and candy factory, mattress factory, planing mill, box factory, two publishing companies, tent and awning factory, cotton compress company, oil mill, oil refinery, two artificial stone crushers and two tank and cistern factories.

In the wholesale trade Oklahoma is already known throughout the Southwest as a solid jobbing center, and in all branches

she is daily extending and enlarging her trade. In retail lines all branches are represented, and the storerooms of all tradesmen are up to date and the stocks on hand are as varied and complete as those of any to be found in the stores of the larger cities of the States. In manufacturing the city is rapidly progressing, and there is scarcely a line to be mentioned that is not represented.

The bonded indebtedness of the city is \$743,000, distributed as follows: Water-works, \$325,000; sewers, \$262,000; funding, \$126,000; City Hall, \$30,000.

Oklahoma City has 10 school buildings and three more under construction. Her teachers number 140. In higher education the city has Epworth University, under the joint patronage of the Methodist Episcopal Church and the Methodist Episcopal Church, South. To Mr. Anton H. Classen is the greater credit due for the establishment of this university, for it was his gift of \$100,000 that gave to it its first impetus. The school census for 1906 shows the city to have 9484 children of school age.

She has 22 church buildings, with the twenty-third under construction. This one is to cost \$60,000. The churches are valued at \$500,000, and represent 14 of the leading denominations.

Real estate is at all times active, and confidence appears to be the rule.

Politically the two great parties appear to be about equally balanced, but politics seem to cut no figure when it comes to advancing the interests of the city. Everyone seems to have set the pins to give the city 100,000 population within a decade, and it would not surprise the writer should she count that number in half that time.

There are three daily papers here—one afternoon, republican; two morning, one democrat, the other republican; a German weekly and a Bohemian journal, together with a number of minor and trade publications.

Life, fire, accident and bond insurance companies are fully represented; in fact, there is no business that can be found in any other city that is not represented here, and, so far as the writer has observed, no business appears to be overdone.

The city is served by 6000 miles of railway, and of these all but 700 miles are owned by the four great Southwestern systems, each of which maintains division freight and passenger headquarters here. The roads are the Rock Island, Santa Fe, Missouri, Kansas & Texas, and the Frisco.

There are four national and three State banks and one trust company, with capital and surplus \$904,000; deposits, \$4,711,289.66.

The postoffice revenues for 1905 were \$110,000.07, an increase over 1904 of \$22,000.

The assessed valuation of the city at one-quarter is \$5,203,462, with a tax levy for the year 1906 of 19 mills.

The writer has traveled extensively through the two Territories soon to be merged into the State of Oklahoma, and without hesitation pronounces the country adapted to agriculture par excellence, though its resources in other respects are varied, and in many instances seemingly unlimited. The Indian Territory especially is very rich in minerals; salt, cement, asphalt, coal, gas and oil, limestone, marble and granite are found in superabundance, while it is the opinion of the writer, based upon observation, that sooner or later rich mines of silver, gold, copper and coal will be uncovered in the Wichita mountains in Comanche county, Oklahoma.

As a cotton-producing State, without a

doubt Oklahoma is destined to rank among the greatest in quantity, and taking the reputation of its present product as a basis, the richest in quality. Owing to the abnormal amount of rain this year and the unseasonableness of it, some uneasiness is felt with respect to the output of cotton this year, but so far as the writer has investigated, he is of the opinion that there is no cause for uneasiness. In this connection Oklahoma City must naturally become one of the great cotton marts of the country.

Practically everything grown in the temperate zone can be raised to perfection in Oklahoma and the Indian Territory. Upon a single farm in Oklahoma the writer has seen growing at the same time the products that flourish in all the States from Minnesota to Florida and from Maine to California.

The opening up of the Kiowa-Comanche reservation, consisting of 480,000 acres of the finest agricultural land in the new State, together with 25,000 acres of timber, making 505,000 acres in all, is attracting much attention, and that section of Oklahoma is crowded with homeseekers investigating conditions. The lands are located in Comanche county, on the extreme southern border of Oklahoma. They will be disposed of between now and the 6th of December, under sealed bids. The minimum price must be \$5 per acre, and the maximum price will certainly go to \$20, many believing that they will go as high as \$25 per acre. Homesteaders only are entitled to bid, but the private opinion of the writer is that the homesteader who is honestly seeking a home will not be much in evidence. Lands in both Oklahoma and the Indian Territory are higher, on the average, than they are in Missouri, one of the great agricultural States, and it seems rather strange to the writer that homeseekers do not go to that State, where unbroken lands can be bought of private parties for less money than those in the Kiowa-Comanche reservation and on easy terms, i. e., one-fifth down, balance in four annual installments.

Climatic conditions in the new State are about an average between those of Missouri and Texas. The autumns are beautiful, winters not long, with very little snow; spring comes early, and the summer days are hot; the nights, however, are cool, and during this whole summer the writer has not experienced a night when a light blanket was not a comfortable adjunct to the bed.

The towns and cities, especially of Oklahoma proper, are well built, thrifty places, most of them possessed of up-to-date public utilities, thus rendering them desirable places in which to make homes.

Both of the great parties are at present earnestly engaged in selecting candidates for the constitutional convention. The indications are that first-class men will be selected by both parties. The result is in doubt, but it is the opinion of the writer that the republicans will control the constitutional body. The two main issues before the convention will be prohibition and the disposition of the school lands of the new State. With reference to prohibition it would seem to the careful observer that a majority of the people do not desire its injection into the constitution.

Touching the school lands, it is understood that the school authorities desire to hold them intact, under the impression that a greater revenue can be derived from them through leasing than from interest on the money received for them. The writer is of the opinion that the masses prefer that these lands shall be sold to the people in order that they may be more generally distributed, thus giving the State a greater population.

Taken all in all, nothing too good can be

said of the coming State, her towns, cities and villages. At present prices undoubtedly investments in real estate can be safely and profitably made, and finally, the

writer has seen no city in the United States which shows greater evidences of home life than does Oklahoma City.

F. M. P.

PRESSING NEEDS OF WEST VIRGINIA.*

By SENATOR W. C. SPOUL of Pennsylvania.

This State needs your co-operation. To my mind, West Virginia is the richest field of development in the nation. Lying as it does, saddling the Alleghenies, with one side bordering the Ohio river, which is to be the workshop of the nation, and within easy reach of the great lakes and their wonderful cities, while the other side extends toward tidewater and the immense centers of population and commerce in the East, and bordering the great Keystone State and within a geographical stone's throw of the marvelous mart of Pittsburgh, this 24,000 square miles of territory yet reaches down to the great promised land of the South and is the new hub of this industrial nation. Here it lies, within easy reach of every important market east of the Mississippi, right at the confluence of all the great avenues of trade, and yet with all of the wonderful opportunities for progressiveness and development of a comparatively new country. Had anyone told you 15 years ago what West Virginia would be today you would have regarded him as a kindly vagabond, a theorist whose whims were too good to be true. If I should tell you today what West Virginia ought to be 15 years hence you would look at me as a fine word painter and a happy dreamer. I will not try anything of the kind, but suffice it to say that the future of this State is assured: it will need no booming, no boosting; it will grow and develop and flourish in a way which will be more astonishing than has been its growth in the past two decades.

But with all of its natural wealth and great opportunities, West Virginia needs the directing, controlling and stimulating force which its own best citizens can give to its government and institutions. It is like a marvelously rich well of oil, flowing at an amazing rate and with a seemingly unending supply, but like the oil well, its riches need directing and handling to prevent their dissipation and waste. It is the function of its State government, controlled and directed by its business men, who are and ought to be its best citizens, to apply this controlling power, and it is the duty of you all, who represent this commercial organization of the State, to study these things and to enlarge and strengthen your organization, so that it will comprise every important interest for good in the State and to use its force and power to aid your State government and to make it all that it could be in conserving the welfare of the people.

It seems to me that there are three particularly pertinent matters which demand your attention and your influence right now, and I notice that you have already recognized the importance of these subjects and that you have committees appointed to consider some phase or another of each of them. The three matters that appear to need your immediate attention are, first, the encouragement of a more intelligent and more general system of farming and gardening in your fertile sections, in order to provide a better and cheaper food supply of your own products for your working people; second, the building, with or without the aid of the State, of good main highways connecting important points, and third, the consideration of the attitude of the State toward corporate and individual enterprise.

*From an address before the West Virginia Board of Trade.

Each one of these subjects is of prime importance in the true development of the State, and the first two are so intimately connected that they might well be considered together. The question of a greater independence in the matter of food supplies is one which has often presented itself to me in my observation of conditions, especially in this section of West Virginia. I have often marveled that a valley so favored as to soil and climate as this Kanawha valley should be farmed so indifferently, and that with splendid markets right at their doors in the cities and the thriving mining towns, and every advantage here for the raising and sale at good prices of every kind of market supplies, so much of this rich bottom land is allowed to lie idle or is used for raising corn and other crops which bring little to the farmer in comparison with what he should be able to secure did he farm fewer acres more intensively. I have seen great tracts in corn here which under the most favorable conditions could not yield as much as one-tenth the area would have produced in market produce if properly tended and brought to the Charleston or Huntington or Montgomery stores. The opportunity for making money hereabouts by energetic and intelligent farming is better than almost any chance of the kind that I have ever observed anywhere, and a campaign of education should be inaugurated by the commercial interests of the State, by the railroads and by the State itself along these lines. In Pennsylvania and in Virginia a great deal has been accomplished in educating the farmers up to a point of greater efficiency and success by the agricultural departments of the State governments, and these departments, with the co-operation of the railroads, have brought in colonies of farmers, truck and fruit growers from other States and from foreign lands, who have been of the greatest service to the communities.

The importance to an industrial community of good and reasonable markets is manifest to everyone. The health, contentment and efficiency of the workers is a paramount consideration. The value of a rich and prosperous farming section to the trade of a town is likewise well known, the thrifty and prosperous farmer is a good buyer as well as a good seller, and the money he gets for his produce lies in the local banks and is spent in the local stores.

In New York a few weeks ago I heard a student of such statistics make the statement that no State east of the Missouri river produced so little of what it consumes as West Virginia. He thought this was natural, because he regarded this State as a desolate mountain section. He did not know of the fertility of the splendid river bottoms and of the arable mountain tablelands in this State as I did, and when I had described to him the conditions here he wondered as I did that more effort was not made to supply the home demand.

Did it ever occur to you that if one-half of the money which goes out of this State for vegetables, for meat, for eggs, for poultry and for native fruits could be kept here, where these things could just as well be grown as in the other States North, East, South and West where they come from, and the money thus saved to the State could be invested in West Virginia farms and farmhouses, in West Virginia stores and banks and enterprises, what a

difference there would be in the wealth of this State in a single year? With the money which is coming in here for the mine and forest products, things that other people need and cannot get at home, if only a reasonable portion of it could remain here for things that you might just as well raise from your own fertile soil and supply to your own people, the prosperity of West Virginia would be double, almost, what it now is, and this State, its counties and its towns would progress in a way which would amaze even ourselves, who are used to progress. The State should give its attention to bringing the methods of its farmers up to a point where the great advantages of wealth and contentment brought about by good local food supplies might be realized and that West Virginia farms might more nearly supply West Virginia's needs. A well-directed bureau or department of agriculture, with the help and encouragement of an active organization such as yours, could render great service in this line.

One of the conditions which has kept the West Virginia farmer in the background and discouraged progressive methods in agriculture has been the lack of good roads in the State. Mountain countries have, of course, more difficulties to contend with than level territories in the matter of road building, but a good system of road maintenance, under good laws and with intelligence of administration, can accomplish a great deal. There is no function of the local government, with the possible exception of the public schools, which so intimately affects the people, their comfort and their welfare, as the public road, and, I regret to say, none that is so neglected. The highways of the United States are the worst feature of our mode of local government, and in this respect we are far behind the most backward of the Old World nations. To particularize still farther, of all of the States in the Union, I fear that West Virginia is among the tail-enders in the matter of roads. In many of the States a great deal of progress is being made in the direction of the building and maintenance of good roads. In Massachusetts, Connecticut and New Jersey this has been most apparent. These States, with their limited area and dense population, have larger revenues than the more sparsely-settled Commonwealths, and it is to be expected that they would be the first to make successful movements in the construction of good highways. But New York and Pennsylvania and some of the States of the middle West are making effective efforts in the same direction. In Pennsylvania we are making genuine headway. I have the honor to have been the author of the law under which the State of Pennsylvania is now co-operating with the counties and townships in the building of roads. We started the present system less than three years ago in a modest way; the counties were slow to take advantage of the law, but we have already finished or are finishing over 300 miles of permanent stone highways, we have surveys and specifications prepared for as much more, and have applications in from every one of the 67 counties in the State for a total of more than 1500 miles. After next year we expect to have \$3,000,000 available each year to expend as the State's share of good road building, which, with the amount contributed by the counties and townships, will insure the completion of 700 or 800 miles of first-class macadam or telford roads each year. Since the new system has been inaugurated there has been such an awakening of interest in the subject of good roads in Pennsylvania that I believe that even a greater proportion of the State's revenues will be devoted to this purpose. The result of this work will soon be apparent, and in a few years most of

the important main roads will have been improved.

In drawing the Pennsylvania law I studied carefully the best enactments of the other States which are making a systematic improvement of their roads and tried to combine the best features of each of them in a general law suitable to our conditions. After two years' trial we made some modifications to remedy defects and weak points in the act, and I believe that our present law is the broadest and most effective legislation for road improvement in effect in any State. The total amount of money which the State gives to aid in road building is apportioned among the counties in proportion to the number of miles of roads contained in each, and is available for the use of such townships as may apply for State aid for the construction of permanent improved roads under specifications furnished by the State Highway Department and under the supervision and direction of the State. Of the total cost, the State pays three-fourths and the county and township each one-eighth. The county is obliged to co-operate with the township, although, if the township is willing to do so, it may bear one-fourth of the cost alone and do without the county's help. As a further encouragement to the townships to construct and maintain good roads the State sets aside one-tenth of the sum which it has available for road improvement each year for the maintenance of roads, and this money is distributed each year among the townships in proportion to the mileage of roads built and kept up to State standards.

Of course, Pennsylvania has a large State revenue, and is able to devote large sums toward internal improvements—even while building the famous \$13,000,000 capitol. Her system of taxation, too, is ideal, and farm land and real estate in general bear no share of the burden of maintaining the State government, so that the money which is returned to the rural districts for improved roads is an actual gift to the farmers. In West Virginia it would not be possible under the present system of county government to inaugurate such a system as that of Pennsylvania, nor would the present revenues of the State be sufficient to devote a very large amount to aiding the counties in rebuilding their roads. But a very small addition to the present revenues of both the State and county would enable a good beginning to be made somewhat on the line of the Pennsylvania plan, and it ought to be possible to improve the main roads in the valleys in a short time. The improvement of the main roads would benefit everybody alike. The farmers and residents of more remote sections would be able to reach the main roads on their way to market or to court or on their various errands; the residents of the towns would find easy communication with neighboring places and would have brought to their doors the products of the farms and gardens, and every class in the community would be the gainer.

Nothing that could be done would do more to make possible the improved farming conditions and better food supply of our towns and industrial settlements, the great need of which I have already spoken of, than improved roads. Every business and social enterprise would be benefited, and the value of farm lands and town property alike would be enhanced. There is no better or more fruitful field for endeavor than in this line. Your committee on roads and your whole body, as well as every individual member, may well take up the good-roads propaganda. The way to start the matter is to get your Legislature to pass an act providing for the aid of the State in rural road building. The way to get the Legislature to working on the project is to have a good bill drawn suitable to your form of governmental organization,

put it in charge of some capable Senator or Representative who is interested and whose efforts will carry weight in the session, and then get every influential force in the State to work to secure the passage of the bill and the appropriation of money for carrying it out. Then see that the Highway Department of the State is organized with capable and honest men in charge, and you will have inaugurated the greatest progressive movement of a generation. If there is any additional information or assistance that I can render in this direction it is yours for the asking.

Now I have come to the third and last of my topics, and it will not take me long to tell you what I have to say regarding it. There has been a great deal of agitation throughout the country against corporations, and in some cases a really dangerous sentiment has been aroused which promises ill for the future. Agitators have arisen whose creed is antagonistic to every enterprise which has corporate powers, and an effort is being made to foster enmity to organized capital. Misjudging the motives of the President of the United States in his efforts to protect the rights of people in their relations with the great corporations and to secure for the humblest citizen full justice and full respect for his rights from the most powerful, small-fry politicians and more ambitious statesmen, aided by journalistic sandbaggers who think they see an opportunity for courting popular favor, are making a general raid upon all corporate interests. The legislative sessions this winter in many of the States will witness attacks upon business interests from every direction. By burdensome taxation, by various so-called regulation and by every device that fertile brains can conjure up plans will be laid to punish the corporations. Perhaps the prosperity of the country can stand it. I hope it can. It has stood a great deal in the past year or two. But the people who are engineering these attacks forget that corporations are made up of the money of individual investors, and that the shares are held by the people, by their banks and savings funds, and by those who have the foresight and the courage to undertake great enterprises which develop the resources of the country and give employment and wages to the toilers. Any impairment of the value of these shares affects the public at large and the general prosperity almost as directly as it affects the shareholders. If those who have money are to be taxed and regulated so that they cannot make a fair return for their investments they will not invest where they are subjected to such conditions. That is all.

Understand, I am not favorable to relaxing one iota of the control of the State of its creatures, the corporations, nor do I stand for one minute for any infringement of the rights of the people by corporate power or individual influence, but I do decry this hysteria which is sweeping over the country, and which is bound, if unchecked, to work harm to the material interests of the land. West Virginia has, I believe, been freer from it than almost any of the States, and if she continues to deal soberly and sanely with the rights of her people, rich and poor alike, she will continue to attract the attention of those who seek investment for their funds and the great resources of the State will continue to be developed with a rapidity which has been record-breaking. This State has encouraged her citizens, as well as the citizens of other States, to associate themselves into corporations for the purpose of carrying on the great improvements which have been made here. Your courts, too, have been fair, and the State has a good reputation for conservatism and fair dealing. This policy has made a wonderfully prosperous Commonwealth for you. See

that it is continued. Watch your Legislature while this excitement is going on, and do not allow the material development of your State to be interfered with by commercial schemes of regulation and taxation and vicious schemes of persecution. You will be affected directly and forcefully. Let the marvelous development of West Virginia go on under just and generous laws, and see that you are not over-governed.

All that I have told you today might be condensed in a nutshell in advising you to take a hand in the government of your communities and State. In a word, watch your State government in its relation with the business interests and lend the State a hand in developing and protecting the commercial side of West Virginia.

THE BIRMINGHAM DISTRICT.

Easier Feeling as to Raw Material for Iron.

[Special Cor. Manufacturers' Record.]
Birmingham, Ala., October 15.

Furnacemen in the Birmingham district are finding but little trouble, if any, in selling their product for delivery during the second quarter of the coming year at \$16 per ton No. 2 foundry. The production shows very little improvement, if any, as yet, notwithstanding the weather is more favorable now for a steady operation of the ore mines and limestone quarries, as well as work around the coke ovens, and the railroad facilities are uninterrupted. The raw-material supplies are easier now than they have been for some time, and the indications that there will be a better supply right along. The Sloss-Sheffield Steel & Iron Co. is expending a large sum of money on its Philadelphia furnace at Florence. This furnace will be equipped with a skip hoist and other improved machinery. The Woodward Iron Co. is practically rebuilding one of its furnaces at Woodward. The Central Iron Co. is pushing work on the furnace at Holt, in Tuscaloosa county.

Rumors prevail that the little Williamson furnace, in the city proper, will be started up shortly. This furnace is a small one, having a daily capacity of from 70 to 90 tons of iron, and all the raw-material supplies are purchased. If the furnace is started it will indicate the strength of the market, as prices must be high for the iron-maker to be run at any profit whatsoever. Frederick Dimmick of the Dimmick Pipe Co. is the principal owner of the plant. Another rumor is that the Southern Steel Co. will be a bidder on the properties of the Lookout Mountain Iron Co. when same is sold under the hammer by the federal court. The properties of the last-named company consist of a large furnace, coal and ore lands and coke ovens, with all necessary appurtenances, including houses for employees, at Battelle, in DeKalb county, on the Queen & Crescent Route, between Chattanooga and Birmingham.

Much interest awaits the full announcements as to the intentions of the Tennessee Coal, Iron & Railroad Co. after the meeting of the stockholders of the company held at Tracey City, Tenn., at which meeting an increase of the capital stock from \$30,000,000 to \$50,000,000 was authorized. While it is generally understood that the object of the increase is to complete the merger between the Tennessee and Republic companies, there is a belief that further developments in Alabama are proposed. A statement was made some time ago that the Tennessee Company would expend something like \$14,000,000 in this territory. Actual plans announced after this call for an expenditure of no less than \$7,000,000. It is now believed that provision will be made for the expenditure of the full amount first mentioned. Messrs.

R. H. Edmonds and William C. Seddon of Baltimore, Md., directors in the Alabama Consolidated Coal & Iron Co., are in the Birmingham district inspecting the properties of the company and looking over the situation.

Southern Steel Co.'s Purchase.

[Special Dispatch to Manufacturers' Record.]
Birmingham, Ala., October 16.

The Southern Steel Co. has purchased the properties of the Georgia Coal & Iron Co., including one 200-ton furnace at Rising Fawn, Ga.; 330 coke ovens and 51,000 acres of mineral lands containing much manganese ore in North Georgia. More than \$2,000,000 are involved in the deal. The properties will be managed from this point. The furnace was recently improved, and is in good shape. The Southern Steel Co., which a short time ago absorbed the Lacey-Buck Iron Co. and the Chattanooga Coal & Iron Co., has now four blast furnaces, a big steel plant and a plant for finished steel at Ensley, with products sold up to June 1.

MUSCLE SHOALS POWER.

Million-Dollar Company Incorporated to Develop It.

Announcement is made of the incorporation of the Muscle Shoals Hydro-Electric Power Co., which purposes to proceed with the development of power at Muscle Shoals in the Tennessee river in Alabama in accordance with plans approved by the Government. Two dams are to be constructed, and it is stated that the use of water at each dam may be equivalent to 13,000 feet a second flowing continuously. The company incorporated has a capital stock of \$1,000,000, of which it is stated that \$252,000 has been subscribed. Its officers are: President, Frank S. Washburn of Nashville, Tenn.; vice-president, J. W. Worthington of Sheffield, Ala.; secretary-treasurer, Wm. H. Lindsay of Nashville.

To Develop Trade in Latin America.

Southern interests are looking to Mexico, Central and South America as an inviting field to consume greater quantities of American products than they have taken in the past. The city of New Orleans, because of its geographical location, is especially adapted as a center for exporters. Realizing this, and with the intention of utilizing the United Fruit Co.'s facilities in connection with the Panama Railroad and the facilities which the Tehuantepec Railroad will offer, the Southern Exporting Co. has been organized in New Orleans. Its officers are Fred P. Morrill, president; Nils Herlitz, vice-president and general manager; John E. Bouden, Jr. (a vice-president of the Whitney-Central Bank), treasurer, and Charles E. Baisley (manager of that bank's foreign department), secretary.

Encouraging Industries for Sutton.

It is announced that the Development & Industrial Co. has been organized for general development purposes and to encourage the establishment of manufacturing industries and other enterprises at Sutton, W. Va. The company states that Sutton is an especially good location for wood-manufacturing plants of all kinds, and that various other factories as well can readily obtain raw materials. Ample shipping facilities are available, the Baltimore & Ohio Railroad being now in operation to Sutton and the Coal & Coke Railway will extend its line to the city within the next year. Manufacturers seeking sites are urged to investigate.

The Leyland steamship line is planning to run two cotton steamers a month between New Orleans and Manchester, England.

WEST TAZEWEEL COAL.**Developments Under Way in That Southwest Virginia Field.**

[Special Cor. Manufacturers' Record.]

Big Stone Gap, Va., October 12.

Gen. R. A. Ayers and associates of this place purchased three years ago 12,000 acres of coal land lying north of Richlands, Va., in the western end of Tazewell county, lying upon Big Creek, West Fork, Big Town Hill and Little Town Hill creeks. They organized a holding company, the "Tazewell Coal Land Corporation," and at once proceeded to develop the coal and make leases. The first company to commence work was the Seaboard Coal Co., which leased 1500 acres of the property and opened mines on both sides of Big creek. This company has been shipping coal since January, 1905, and has developed a large capacity, recently equipping its mines throughout with electricity, using electric motors both for gathering and hauling, and electric machinery for mining. The company has increased its capital stock from \$100,000 to \$400,000, and is engaged in the construction of two coke-oven plants, one at Seaboard on Big creek and one at West Fork. Fire-brick have been purchased for the first 200 ovens and are being received, and work of construction is progressing rapidly.

The second company to lease land from the Tazewell Corporation was the Richlands Coal Co., which commenced operations upon 500 acres and built a plant, entered the coastwise steam coal trade and developed their mines to a large capacity.

The third lease of 2000 acres was made to Justus Collins and associates of Charleston, W. Va., who purchased the Richlands Coal Co., and are now rapidly enlarging the scope of its operations. They are building 100 houses, a large powerhouse and commissary, installing a steam and electric plant and equipping their mines with electric haulage and cutting machines. Previous to coming to Virginia Justus Collins and others were large operators on the Chesapeake & Ohio Railroad in West Virginia, and sold out three operations to a New York syndicate.

The West Fork Lumber & Manufacturing Co., recently organized, an allied company of the Tazewell Corporation, has purchased of it 25,000,000 feet of timber and erected a large and complete mill on the West Fork and is building five miles of railroad to transport its timber.

The properties of the Tazewell Corporation embrace in one section five distinct workable beds of coal above drainage, including two beds of the Pocahontas measures, and carries the other Pocahontas coals below drainage. The property is developed by the Big Creek branch of the Norfolk & Western Railway, 7.26 miles long, and two other branch lines have been arranged for to develop other portions of the property.

Upon Coal Creek and Mud Lick at Raven, four miles west of Richlands, there are two operations at work and another being installed. At Big Town Hill there is another operation shipping steam and domestic coal, and Field Scott and associates of Knoxville, Tenn., and Columbus, Ohio, have purchased 1000 acres of coal land upon Big Town Hill and are preparing to build a railroad and put in a mining operation. These properties are situated about 20 miles from Gary, W. Va., where the large coal and coking plants of the United States Steel Corporation are located. This corporation located its plants at Gary after an exhaustive examination of every coking coal upon the Appalachian range to secure a coal that would produce the lowest phosphorus in the coke. The coal selected by them is very low in phosphorus, and enables them to manufacture with it Bessemer steel out of ores much

higher in phosphorus than other coals upon the market would permit. The coals of the West Tazewell field are almost identical with the Gary coals in this particular, running as low as .003 in phosphorus.

The American Oak Leather Co. has purchased a site for a large extract plant in Tazewell county near Richlands, upon the Norfolk & Western Railway, after satisfying itself that there was an almost inexhaustible supply of chestnut timber tributary for the manufacture of tanning extract.

The West Tazewell coal field is an extension of the Flat Top of the Pocahontas, and is known locally as Sandy Ridge. Farther west in Wise county the same formation is known locally as Black Mountain.

Actual oven tests of the coal from the West Tazewell field demonstrated its value and induced the construction of the oven plants now going on.

In addition to the lands owned by Gen. R. A. Ayers and associates, the following well-known people and companies have purchased large adjoining tracts, viz., Berwind White & Co., the Terraday Coal & Coke Co. (organized by H. C. Frick), T. M. Righter, a large hard-coal operator of Mt. Carmel, Pa., and president of the Whitehall Portland Cement Co. of Cementon, Pa.; H. Hardaway and associates, now connected with the Clinch Field Corporation, and Col. T. W. Cary of Richmond, Va.

The area of this field, embracing a small portion of Buchanan and Russell counties, approximates 200,000 acres, and is destined to be one of the great coal and coke producers of the country.

Kentucky-Tennessee Oil Field.

[Special Cor. Manufacturers' Record.]

Barboursville, Ky., October 14.

Notwithstanding the lethargy which has marked the oil-development industry throughout the country during the past few weeks, the various divisions of the Kentucky-Tennessee fields show some good results from the past few weeks' work. Operators in the principal divisions are now conducting their fall drilling campaign, while in the "wild-cat" fields the drillers are getting a hustle on themselves before the winter season, with its bad roads, high cost of drilling and other handicaps, sets in.

Of the 11 producing divisions of Kentucky and the two producing divisions of Tennessee, Wayne county, Kentucky, leads in activity. In the six developments of that county there has been little diminution in activity. For two weeks past eight strikes have been made, the best doing 50 barrels. But one duster was registered during the same time. Sinking is leading the six divisions in production, turning out about 5000 barrels of high-grade crude oil weekly. Of late there has been some effort at extending production to Wolfe creek, near the Whitley county line, but a series of dusters has resulted from recent tests in that direction.

Drilling is pretty active in the Wolfe county fields. This is the deep-sand field of Kentucky, oil being found at depths of from 1300 to 1400 feet, and the flow of oil is lasting. For two weeks past there have been seven strikes with not a single duster. The remarkably low percentage of dry holes encountered in Wolfe county is one thing that makes that field especially attractive to operators. The seven strikes of the past two weeks will average 25 barrels each.

In Southeastern Kentucky the Whitley and Knox county divisions have been rather quiet just now. Chicago operators are getting a fair production in Whitley, while Ohio operators continue work in Knox county. There have been no strikes in either field for two weeks. In upper Kentucky the Bath-Rowan field and the

Estill county field are centers of some new work. The Bath-Rowan field is owned by the Standard Oil Co. The production of oil is all of the heavy grade, and all of the wells show excellent producing qualities.

In the Eastern Kentucky fields Floyd and Knott counties are commanding some attention from West Virginia operators and from the Standard Oil Co. Occasional strikes are made. In Cumberland county the Standard Oil Co. has started some important test work, two rigs being kept at work. The Standard will thoroughly test some of its immense holdings and endeavor to restore a failing production in that region. In Barren county Louisville operators are doing a little work.

Thousands of dollars are being expended weekly in "wild-cat" or test drilling. A promising lead has been gotten in Lee county by the Wallace Oil Co., Beattyville, Ky. Two oilers and a gasser have been drilled. About a dozen Ohio river counties are centers of prospecting. In Tennessee an association of Jellico capitalists is prospecting in the Elk valley with good success. In Dixon county, Tennessee, Chicago operators have gotten a fair production from "wild-cat" drilling and will establish a small refinery, as the Standard's lines do not reach that section.

Runs of oil aggregate 20,000 barrels weekly, a slight falling off from summer figures. Fall drilling is expected to increase this average. W. S. HUDSON.

ROCK ASPHALT PAVEMENTS.**Material Becoming Popular in the Southwest.**

In his paper before the meeting of the American Society of Municipal Improvements, in session at Birmingham, Ala., last week, Mr. Walter Reichardt of Little Rock, Ark., after discussing at length the various grades of material and the different methods of construction of the most common pavement, brick, found in his section, said:

"A pavement that is becoming more popular in the Southwest is the asphalt pavement, and this is due to the fact that a very fine grade of rock asphalt has been found in these States. Of asphalt pavements now being laid rock asphalt seems to be in the majority, as it has been shown that this grade will stand the warm temperatures.

"The rock asphalt is found in large quantities in Arkansas and the Indian Territory, the former being richer material and the writer believes will stand more wear. The Territory asphalt has been used a great deal in Texas, and has given good results, while the Arkansas material has been used only in that State.

"The rock asphalt pavement is constructed in same manner as the old asphalt with the exception that a binder course is not used. The asphalt is ground, after which carbonate of lime is added and the mixture dumped into a mixer. After the material has been thoroughly mixed it is shoveled into the heater, where it is raised to a temperature of 250 to 300 degrees Fahr. It is then hauled to the street, where it is raked and rolled as any other asphalt pavement.

"In the mixing of rock asphalt care must be exercised, as the material, as a general rule, runs irregular in percentage of bitumen and therefore requires constant testing in the laboratory. The amount of carbonate of lime that is added to the mixture, of course, depends upon the percentage of bitumen that the material contains.

"The writer has used the Territory, Arkansas and also the Kentucky asphalt, and finds that a good pavement can be had from use of each kind if it is properly handled, and that no fixed rule can be applied

to the handling of any, as constant experimenting and testing of each is required.

"Of the three asphalts mentioned, the writer has found the Arkansas material, which is the richer material, to be the easiest handled, and owing to its large amount of bitumen is exceptionally good for the asphalt macadam. The asphalt macadam has become very popular, and owing to its small cost as compared to the other pavements will become more popular and will be used extensively in residence districts. An asphalt macadam has the same appearance as that of the sheet asphalt, and is as easily kept clean, its surface being smooth, but not slippery.

"The Arkansas rock asphalt macadam, with which the writer has had experience, is constructed as follows: The subgrade is prepared in the usual manner; however, great care is taken in removing the spongy places and refilling with good material and is thoroughly rolled. On top of the subgrade is spread a layer of stone, the largest of which will pass through a three-inch ring. This layer is then thoroughly rolled, after which a one-inch layer of sand is spread and rolled, thereby filling to a great extent the void of the stone. On top of the sand and stone is placed another three-inch layer of stone of the same size as base material. The entire pavement is again rolled and is then ready for the wearing surface, which is three inches in thickness and consists of a mixture of ground rock asphalt and crushed stone, the largest of which will pass through an inch ring. After this mixture has been spread the entire pavement is again rolled with a heavy roller, and after spreading or sweeping cement over same the pavement is ready for traffic. This pavement increases in hardness by the traffic as it becomes more packed. The cost of this pavement in the city of Little Rock, where crushed rock is plentiful, was \$1.40 per square yard.

"This macadam is not an experiment, but has been proven to be a popular pavement, as well as a lasting one. However, this, like all other pavements, requires attention and must be kept clean, as we all know water and filth cause deterioration of any pavement.

"An advantage that the macadam has over the sheet asphalt pavement is that it is not slippery and never becomes so, the stone in the pavement affording a footing for horses."

New Glass and Mirror Plant.

Some time ago the MANUFACTURERS' RECORD included in its reports of new industrial enterprises in the South the O. W. Slane Glass Co. of Statesville, N. C. This company has now completed its plant and will manufacture mirror plates for the furniture trade and clear beveled plate glass. Its main factory building is 60x120 feet; boiler-room, 30x30 feet; warehouse, 30x60 feet. About 60 men will be employed when the plant is in full operation. The company is capitalized at \$20,000.

Bessemer's Proposed Steel Plant.

The MANUFACTURERS' RECORD referred recently to a proposition for the establishment of a plant to produce steel by a new process at Bessemer, Ala. A committee has now been appointed to endeavor to perfect plans for securing the proposed enterprise. It is composed of Messrs. G. P. Martin, James Bowron, H. L. Badham, Lee Moody and R. F. Smith. Eastern capitalists are said to have submitted the proposition to locate the plant.

The Savannah (Ga.) City Council has adopted a resolution granting M. Ed. Wilson and others the right to operate automobiles on certain streets, their plan being to establish an automobile line.

FOR KENTUCKY'S MATERIAL PROGRESS.

A Permanent State Development League Formed to Expedite the Movement.

[Special Correspondence Manufacturers' Record.]

Winchester, Ky., October 12.

After a very interesting three days' session the fifth State Development Convention of Kentucky came to a close this evening. There were more than 200 delegates in attendance on this convention, a number of very able and inspiring addresses were delivered, an instructive and enjoyable excursion was made to an Eastern Kentucky coal field and timber district, and steps were taken to give permanent form to the State Development League, with headquarters in Louisville, and to secure adequate and fitting representation for Kentucky at the Jamestown Exposition next year.

Including the day devoted to the excursion to Beattyville, the convention was in session three days, Wednesday, Thursday and Friday, October 10, 11 and 12. Ex-Senator Wm. Lindsay, now of New York, was chairman of the convention throughout. The numerous addresses on the program were nearly all delivered, omissions through absences numbering only four or five. Almost every topic was provided for in the program, and the speeches made covered immigration, live-stock and dairy farming, agriculture, forestry, coal resources, cement, sand, lime, brick, tax reform, Jamestown Exposition, good roads and education.

There was abundant evidence of a determination on the part of the representatives of Kentucky's business interests present to take such action, through organization and in the Legislature, as will advance the material interests and the upbuilding of Kentucky. This was strikingly demonstrated in the reception given to one of the addresses, wherein it was declared that Kentucky's development had not kept up with other States because in Kentucky the public men had made a business of politics instead of making business their politics, as West Virginia has done to a conspicuous extent for a large number of years.

The resolutions adopted called for a constitutional amendment that will make possible a more equitable system of taxation, so that enterprises may be encouraged and the prosperity of the whole people materially increased.

A Jamestown Exposition commission was appointed, which is to secure by private subscription funds sufficient to erect a \$25,000 building on the exposition grounds and to make a creditable exhibit of the resources of Kentucky. The Legislature of the State having failed to make any appropriation for these purposes, resolutions were passed declaring that in this action the Legislature had misrepresented the people of the State, and the plan of raising funds by personal contribution was declared to be the only alternative now.

Government recognition and co-operation were given to the convention in the presence of Herbert J. Smith of the Forestry Bureau, Washington, who spoke on forestry resources and public welfare, and of Dr. George H. Ashley of the United States Geological Survey, Washington, who made an address on Kentucky and Pennsylvania, in which he spoke of Kentucky as a State fitted by nature to succeed Pennsylvania as a leader in coal production and industrial activity.

State Geologist C. J. Norwood spoke on the work of the Kentucky Geological Survey, and among the resolutions adopted was one heartily indorsing the survey and favoring State appropriations sufficient to continue the work on a liberal and effective

scale. It will be recalled that while the entire governmental machinery of Kentucky was almost exclusively devoted to personal politics, the State Geological Survey was discontinued altogether for a number of years through failure of the State Legislature to provide an appropriation, and it is only recently that it has been made possible to take up the work again.

Among the resolutions adopted was one favoring liberal appropriations for the Kentucky State Agricultural and Mechanical College, to the end that increased numbers of the young men of Kentucky may

be better fitted for agriculture, engineering and textile industries.

In providing for a permanent organization the objects of the league were declared to be to discuss and promote such matters as will advance the interest and redound to the benefit of the State; recommend all needed and beneficial improvements in the State's affairs; advertise the resources of the State; secure suitable information to the State and make efforts to induce desirable immigrants; to do all and everything looking toward the advancement and development of the State in all branches of industry, and have for its principal object the making of Kentucky a State second to none in wealth, education, enlightenment and influence.

Unless otherwise ordered by the executive committee, annual conventions of the league are to be held in Louisville.

ALBERT PHENIS.

COAL RESOURCES OF EASTERN KENTUCKY.*

By ALBERT PHENIS.

The coals of Eastern Kentucky have been so frequently and so fully described and praised that I may find it impossible to add to your store of knowledge on this most important subject or to increase your enthusiasm over the future of this great field. I will not attempt any exhaustive technical or scientific description, therefore, but will offer a few comments from the standpoint of the layman, the chronicler of developments and opportunities, profoundly impressed with the possibilities for vast wealth production which this section affords and earnestly desirous that developments shall occur on a scale commensurate with the opportunities, and at a time that will be of benefit to the people who are now on earth.

Kentucky has not made the best use of her opportunities. When the world thinks of West Virginia it naturally thinks of coal and timber, and wherever in this country or abroad the Mountain State is mentioned it is associated in the mind of every man with a boundless coal supply and vast forests of virgin timber. And yet Kentucky has as much coal as West Virginia and probably as much timber. The coal area of the two States is almost exactly the same, but West Virginia is mining 37,000,000 tons a year and rapidly increasing her output, while Kentucky is mining less than one-fourth as much.

In quality the Eastern coal fields of Kentucky have for 20 years or more been known as containing vast stores of coal unsurpassed in steam and coking qualities in America. Speaking of the Elkhorn coking-coal region, a well-known authority wrote of that district several years ago: "There is probably no coal field in the world that presents more favorable conditions for the mining of coal at small cost. With natural drainage and drift mines the operator is relieved at once of the largest items of initial investment and operating expenses, and with an outlet by rail without grade there is the added advantage of cheap transportation to market."

Investigations made by such world-recognized authorities on coal as d'Inville of Philadelphia, McGrath of Harrisburg and John Fulton of Johnstown, the latter one of the most widely known coke experts of the country, confirm the report made years ago by the authorities of Kentucky as to the superior excellence of the Elkhorn coal. Of coke made from this coal Mr. Fulton reports: "It will sustain the highest blast-furnace charges in use today, and in chemical purity exceeds the average of the Connellsville coke."

*An address at the Fifth State Development Convention at Winchester, Ky.

Bear in mind that the excellence of the Connellsville coke, in connection with its proximity to the iron and steel industry of Pennsylvania, makes Connellsville land worth today from \$1000 to \$2000 an acre, and you can appreciate what it means to find in Southeastern Kentucky a great coal field producing coke superior to Connellsville, at present the accepted standard of the highest coke of the country.

Nearly 25 years ago General Wilder, who built the first coke furnace ever constructed in the South, realizing something of what it would mean to open up this vast Eastern Kentucky field, undertook the construction of what was known as the "Three Cs," or the Charleston, Cincinnati & Chicago Railroad. It was intended that this line should pass through Pike county, through the Breaks of the Sandy and should open up this virgin territory and give an outlet to Eastern Kentucky coal to Chicago and the lakes on the one side and to the Atlantic seaboard on the other. But Wilder's daring project, sound in conception, was in advance of the day. Had he accomplished the building of the line Southeastern Kentucky would before this have more than rivaled the New River or Pocahontas fields of West Virginia or the Warrior coal field of Alabama in activity and coal production. Failing in that great undertaking, that territory remained undeveloped, and it was not until last year, after long and tireless work, that Mr. Chas. A. Hellier of Boston and those associated with him in the ownership of the Big Sandy Company succeeded in bringing about the building of the Big Sandy branch of the Chesapeake & Ohio Railroad to Elkhorn City. That line, 77 miles long, built at a reported cost of \$4,000,000, has opened to the great Elkhorn field the first favorable chance for development, and from it is destined soon to pour a ceaseless stream of coal, reaching, through the Chesapeake & Ohio and its connections, Cincinnati, Chicago and the West generally. Already one company in Cincinnati has made a contract to take for 12 years the entire output of 10 mines which will now be opened up, and which are soon to have a daily output of 6000 tons.

Looking toward the South we find great capitalists, such as Thomas F. Ryan, Blair & Co., Norman B. Ream and others of equal wealth, are expending \$25,000,000 in building a road 400 miles long, which will meet the Chesapeake & Ohio at Elkhorn City, carrying out General Wilder's old plan of building through the Breaks of the Sandy and making a through line from the cotton districts of the South to the lakes

on the west. This Ryan line has ultimately in view, either by a connection with the Seaboard Air Line or by building an independent road, a direct line to one or more South Atlantic ports.

After nearly a quarter of a century of waiting this district of Kentucky is now to realize the anticipations of General Wilder. It may be of some interest to state that about 1884 a correspondent of the MANUFACTURERS' RECORD made a horseback trip across that entire region, from South Carolina through the mountains to Ashland, with General Wilder when he was making his preliminary survey, and probably no better story of the marvelous wealth to be opened up has ever been written of that district than the letters of the MANUFACTURERS' RECORD's correspondent, now long since passed to an even better land than Kentucky.

In other parts of Southeastern Kentucky, around Middlesborough and Jellico and Beattyville, great progress is being made. These districts, of which Jellico is the most widely known, promise soon to take rank with and rival in output the centers of mining activity in West Virginia and other great coal-producing States. With such boundless resources, with a wealth of coal twice as great in quantity as that of all Great Britain, in quality not surpassed—certainly not so far as some of those coals are concerned—elsewhere in this country, even in the world, the people of Kentucky may well ask themselves why the development of their State has not kept pace with that of neighboring States.

Why is it that West Virginia is producing 37,000,000 tons of coal, and the world never thinks of West Virginia without thinking of coal, while Kentucky is producing only about 8,000,000 tons and the world at large scarcely ever thinks of this State as one of the great coal centers of the earth? I believe you will find the explanation in the simple statement that in West Virginia the people have made business their politics while in Kentucky and in a number of other Southern States the people have made politics their business. In this vital difference is found the reason why Kentucky, with advantages of soil, of minerals and of timber scarcely equaled and not surpassed anywhere, has lagged behind in the great struggle for material and industrial advancement and supremacy.

In a discussion of this situation a leading paper recently claimed that the marvelous coal developments of West Virginia are due to the cheapness of its water transportation, and the lack of development in Kentucky to the lack of water transportation, stating that "the chief market upon which our coal fields must rely besides the local demands is in the coalless regions of the South and Southeast." How far from a correct view this is may be seen from the fact that while parts of West Virginia have good water transportation facilities, the great coal fields of the State are dependent exclusively upon the railroads. The Pocahontas field, with a production of millions of tons of coal and coke, ships by the Norfolk & Western Railroad to the Atlantic seaboard on one side and to the West as far as Chicago and the lakes generally on the other side. The New River field is handled by the Chesapeake & Ohio Railroad, while the Baltimore & Ohio annually carries many million tons of West Virginia coal, and the Gould system is now spending enormous sums to connect its railroad system in West Virginia with Baltimore in order to ship West Virginia coal to the seaboard.

The lack of development in Kentucky is not due to any lack of water transportation. It has been due in part to the lack of rail transportation, and the reason why railroads have not been built into the heart

of the coal territory of Kentucky as freely as in West Virginia is largely due to the difference between concentrating the thought of a State upon politics, as in Kentucky, and concentrating the thought and energy of a State upon material up-building, as in West Virginia.

For many years West Virginia has been noted for the fact that the entire machinery of State government has been used to attract capital to the State to develop its railroads, its coal and its timber interests. A succession of four or five Governors—Fleming, Atkinson, White and MacCorkle—were widely known not only in their own State, but in the financial circles of the East, not for their political activity, but for their activity in telling the Eastern people and the Eastern press about the undeveloped wealth and the unbounded opportunity for investment in West Virginia.

In Congress the same conditions have prevailed, and men like Senator Elkins and ex-Senator Henry G. Davis have given their time and energies to the building of great railroads, the opening of coal mines and the building of coke ovens, and to making known to every financial friend the possibilities of West Virginia. In this respect West Virginia holds a unique position not duplicated by the governmental machinery of any other State in the South. These men regard their official position as carrying a weighty responsibility, not only for helping to frame the laws of the State and the national Government to the betterment of the people, but as an obligation to use their high position and wide connection for the direct material development of the State, and at the same time for the upbuilding of its civilization and the higher things of life, as illustrated in their magnificent contributions toward the building of hospitals and schools and Young Men's Christian Association enterprises.

Now, in the development of coal, or any industry of great magnitude, the hearty co-operation of many men of means is required. It is a fact amazing to the most of us who have not had experience along these lines that what I will call the "mother lode" of money never has been struck. A man in West Virginia who has been instrumental in securing the investment in his State of many millions of Eastern money declared to me recently that he never did get to the final fountain source, but the fellows he got money from always had to get it from some one else. In thinking of Henry M. Flagler, Standard Oil magnate, holder of enormous land tracts and builder and owner of hotels by the dozen, and of a great trunk line of road, one almost sees him shoveling gold coin into a bucket or in some other equally simple manner helping himself to any amount of money as occasion or whim may suggest. It came to me almost as a stunning surprise when I was told that Flagler has to get money for his big enterprises just precisely as the rest of us do. A friend of mine was recently discussing with Flagler the marvelous railroad construction in which he is engaged, in the extension of his Florida East Coast Railroad from Miami to Key West—second only to the Panama canal in importance to this country, declared the Secretary of War—which for many miles is actually built on a bridge in the ocean. "And how rapidly are you carrying on this work?" Mr. Flagler was asked. "Just as fast as I can borrow the money," was his reply.

Do you want to develop a coal mine, a railroad must be built. Without transportation to the market even diamonds and rubies would be without price, and a coal mine beyond the possibility of transportation lines would be as worthless as a stone quarry in the mountains of the moon. How are railroads built? The money always comes from the outside. Some man

appears as the head of a group or syndicate, but it isn't often his money that goes into the construction of the road in any considerable sum. The money comes in little streams from a vast number of sources—from bankers, brokers and trustees who hold or represent to a near or remoter degree the accumulations of thousands and tens of thousands of little capitalists, as they may be called—men, women and children who have put money in a savings bank or trust company, or have placed it with a banker for investment.

If there is confidence in the honesty, integrity, industry and business sense of the railroad builder the holders of funds will give him money as fast and freely as conditions make possible. That is, if the community in which the proposed improvement is to be made is friendly instead of hostile to corporate wealth; for without corporate wealth every kind of important development is an absolute impossibility. I know there is disposition on the part of some people here, as everywhere, to condemn and "squeeze" the corporation, and far be it from me to counsel an unrestrained liberty or license for the corporation. But oh, my friends, let me implore you to despise not the day of big things or be scornful of the men who can help you in the development of the resources of Kentucky. These are times of marvelous prosperity, but the opportunities are so many that the capitalist has the pick of the chances, and only those are selected which are most favorable, most alluring.

Kentucky is a State of wonderful richness of resources—perhaps second to Pennsylvania alone in the combination of fertile fields and mineral wealth. Even Pennsylvania, highly developed as it is, can be affected by unfavorable legislation. Kentucky, needing so much outside help and money, can be held up and retarded for a score or more of years by legislation unjustly hostile to corporations. The valuable work of this great organization may be neutralized if you do not see that conservative men are elected to positions as lawmakers.

Make capital feel as welcome and secure as it does in Pennsylvania and West Virginia today; stimulate your statesmen and public men to devote their energies to the material development of your State, and you will hasten the day when Kentucky will take her rightful place as the third coal-producing State, instead of sixth; when every resource of forest, mine and field will be made accessible through railroads to the markets of the world; when your valleys and plains will be dotted with industrial centers and Kentucky will be known as a really great industrial State. And then, and only then, can there be attained that higher civilization which is represented in the schools and churches of this land.

INDUSTRIES AT COLUMBUS.

Plenty of Cheap Power Available and Other Advantages at Hand.

[Written for the Manufacturers' Record.]

In Columbus the State of Georgia possesses a progressive and thriving city which has many natural advantages constantly resulting in the establishment of new enterprises. The present industrial interests of Columbus are diversified and working in connection with the development of the natural resources in mineral and timber existing in the surrounding country. Both rail and water transportation is at the command of the manufacturer or other shipper to the markets, the climate is mild and healthful, and the municipal improvements (roadways, sidewalks, water supply, electric lighting, etc.) are such as to deserve the attention of people who are seeking Southern locations

for the establishment of homes, of manufacturing and mercantile enterprises and other businesses.

Attention may be appropriately directed to the cheap power offered to manufacturers. This is in the form of electricity at prices which are said to be especially attractive to the manufacturer seeking a location where production can be effected at a minimum cost, combined with the aid of raw materials and an ample supply of labor. The Columbus Power Co. is offering for sale a total of 75,000 electrical horse-power (developed and now undergoing development) which it obtains from valuable water-power properties on the Chattahoochee river and nearby.

During the year many new factories have been reported as established or to be established. The most important of the industrial announcements during recent months may be briefly summarized as follows:

Columbus Furniture Co., capitalized at \$40,000; Christopher Box & Printing Co., paper-box factory; Layfield Sand Co., capitalized at \$3000; Muscogee Brick & Terra Cotta Co., incorporated with authorized capital of \$200,000 and establishing plant on 115 acres of clay land to manufacture brick, pottery, terra-cotta piping and tiling; Eagle & Phenix Mills, awarded contract for about 16,000 spindles and other machinery costing \$60,000; Columbus School Desk Co., capitalized at \$8000, to manufacture school desks, opera seats, church pews and other articles of that character; F. S. Royster Guano Co. of Norfolk, Va., purchased 15 acres of land as site for fertilizer factory; Columbus Power Co. filed a \$4,000,000 mortgage and announced purpose to issue bonds for \$1,250,000 in order to carry out its plans for the development of water-power on the Chattahoochee river, this company having been chartered to consolidate various water-powers and to eventually furnish 75,000 horse-power by electricity; Chattahoochee Paper Mills, capitalized at \$50,000, composed of Columbus and Pittsburg capitalists, to manufacture manila paper from wood pulp; J. F. Weathers and associates to invest \$40,000 in establishing a furniture factory; L. L. Noble & Co. contemplating plant for the manufacture of collars, cuffs, etc.; Roberts Baking Co., incorporated with capital stock of \$10,000, and numerous others.

BUILDING UP SHREVEPORT.

Means Taken to Attract Industries and Railroads.

[Special Cor. Manufacturers' Record.]
Shreveport, La., October 14.

About a year ago the Virginia-Carolina Chemical Co. began the operation of a large fertilizer works here. It is about the same size as those conducted by the same company in other States. Near the site of the fertilizer factory the Shreveport Creosote Co. will within the next few days open its plant for the treatment of railroad ties and telegraph poles, and employment will be given to about 75 men. A bonus of \$10,000, by voluntary tax subscriptions, was given the owners of the creosote plant. Following this the property-owners voted a \$75,000 bonus for the Shreveport Northeastern Railroad Co., which will build and operate a line from Shreveport to Homer. The bonus will be paid by means of a seven-eighths of a mill tax on the city assessment, which this year amounts to more than \$9,500,000. The Kansas City Southern Railway Co. has just announced that within the next year it will enlarge its local shops and double its force of employees, of whom there are about 250 at present.

In addition to these notable things with which the city has been favored, several more minor factories and shops have been added, and other items of development are

anticipated. An interurban railway line between Shreveport and Marshall is said to be receiving the consideration of outside capitalists. Steps are also being taken to secure the medical department of the State University, for which about \$30,000 in voluntary taxation has been subscribed.

North Louisiana is constantly receiving a fair sprinkling of immigration. Fruit-growing is being encouraged and promises to be carried on in a more extensive way within the next year or two.

In the city one can hear some complaints of high rents, but this is explained by the need of more residences and business buildings.

The city is just experiencing the use of natural gas for fuel purposes. The gas is piped from Caddo City, a distance of 23 miles from here. It is turned into the street mains from a large pipe line. About 25 gasfitters are working day and night installing gas equipment, and with one exception gas is being burned under the furnaces of all factories, including the power-house of the traction company. Gas is sold to manufacturers at a net rate of 10 cents and for domestic purposes at a net rate of 31½ cents. Manager Curtis of the gas company states that from experiments it has been found that in factories a saving of 33½ per cent. is made by using gas instead of coal, and that a saving of 25 per cent. is accomplished by domestic consumers. The present prices of coal, which are about \$2 for boiler-room use and \$6 for stoves, is considered in this statement.

The Caddo City field is also to supply Marshall, Texas, which is about 26 miles from the field.

The gas has been turned on but four months, and the people generally believe that after it has been used at least one more year it will be the city's most valuable asset in the matter of securing both manufacturers and homeseekers.

W. A. PAYNE.

BIG ORE-LAND PURCHASE.

Tennessee and Republic Companies Buy Properties in Alabama.

Announcement is made in New York that the Tennessee Coal, Iron & Railroad Co. and the Republic Iron & Steel Co. have jointly purchased the tract of iron-ore lands in Alabama, the property of M. L. Potter of Brooklyn, N. Y. It is said that the price is \$800,000, of which \$100,000 will be cash and \$700,000 in 5 per cent. bonds. The ore is reported as averaging about 38 per cent. of iron, and is to be utilized by the purchasers in connection with plans for future developments of their iron mining and manufacturing interests in the Birmingham district. In this connection may be mentioned that the Tennessee Company's special meeting of stockholders at Tracy City, Tenn., on October 16 resulted in approval of the proposition to increase capital stock from \$20,000,000 to \$50,000,000, this action being believed to be preliminary to a merger with the Republic Iron & Steel Co.

The Potter lands are south of Birmingham, Ala., and form a three-mile strip one and a-quarter miles wide located between two tracts of coal land heretofore owned by the Tennessee Company, which has been operating three mines on the Potter property under lease.

Referring to the reported purchase, John A. Topping, chairman of the Tennessee Coal, Iron & Railroad Co., New York, writes the MANUFACTURERS' RECORD: "As to our negotiations for the Potter mineral lands, would say that the publication was premature. We have no statement to make concerning the matter at this time. We may have at a later date."

The closing of this deal will be one more step in consolidating the known iron-ore

bodies of the United States into a few holdings.

The Iron and Metal Trades.

The *Iron Age* in its weekly review says: "The enormous pressure upon our iron and steel manufacturing plants is increasing rather than decreasing, and is spurring the managements to unusual efforts. It is reported that during the first 13 working days of the current month the steel works of the United States Steel Corporation produced a daily average of 48,000 tons of ingots, which if maintained would make the record for the month of October close to 1,300,000 tons of steel.

"Work at the highest pressure is assured all along the line for the first half of next year, and in some lines the commitments run well into the second half. Increasing interest centers in the supply of raw materials for next year and the prices demanded for them. Considerable sales of Lake ores are reported at an advance of 50 cents and as high as 75 cents a ton above this season's figures.

"The Steel Corporation has purchased large quantities both of West Virginia and Connellsville coke, principally for delivery during the first half of 1907, although some important contracts are to run over the whole of the year. This means that the Steel Corporation is unable to cover all of its own requirements. The basis is said to be above \$3 at oven, Connellsville.

"Steel billets continue scarce all over the country, and some moderate-sized lots have been even purchased by the largest producers in the Pittsburgh district. In the Chicago district there have been fairly large sales to car builders of forging billets, and it is particularly interesting to note that a consignment of 13,000 tons of foreign forging billets is soon expected there. They have been offered at \$35, which, however, does not appear to tempt buyers.

"The markets are stiffening in pig-iron, and under the urgent demand for spot delivery considerably higher prices are ruling, both for Bessemer pig in the Central West and for foundry iron in practically all sections of the country. In Eastern Pennsylvania a steel mill has placed the greater part of 20,000 tons of basic pig at \$19.60 delivered.

"Arrangements have been made for the importation of additional lots of Scotch foundry and of foreign low-phosphorus pig, and it looks as though more must come.

"No transactions of any magnitude are reported by the railmakers. The structural and plate mills are getting some good business, including some heavy tonnage from the car builders. The work for the Canadian Pacific, involving about 19,000 tons of bridge material on which American shops bid, has been awarded to a Canadian maker.

"Western car builders have been placing further good orders for iron bars, and the market is firm, both in this branch and in steel bars.

"The manufacturers of merchant pipe have announced an advance of two points, equal to \$4 per ton, on black and galvanized pipe, and \$2 on casing. A large order just placed calls for 285 miles of six-inch pipe for the line of the Pure Oil Co. from Pine Grove, W. Va., to Marcus Hook.

"The market for sheets and tinplate has been stiffening, with an increasing prevalence of premiums."

The Commercial Club of Charleston, S. C., has elected Messrs. Samuel Lapham, president; Lawrence M. Pinckney, vice-president; H. A. M. Smith, Esq., solicitor; Philip H. Gadsden, J. C. Hemphill and M. C. Burton, directors.

The new sanitary sewerage system in New Orleans has gone into operation in a large area in that city.

MINING

Minerals in Llano Mountains.

Editor Manufacturers' Record:

I am an old prospector of the Pacific coast, have been in every oil field south and west and in nearly every mining camp of the Sierra Nevada range, Boston, Witichitaw and Sanberidino mountains, and I must say the Llano mountains show up the best and are only waiting for capital for development. One reason of this undeveloped state is that we have no mining law in the State of Texas. The land belongs to the farmer or rancher. The farmer is looking after his corn and cotton, the rancher after a \$2.50 or a \$5 cow and letting a \$10,000 mine lie idle. I have been prospecting in this country three years. I will tell you what I can do.

I can take you into this range of mountains and show you native copper float, streaks of silver and lead through the rock, four feet of ore croppings. You can pan out free gold, and there are ledges 20 feet wide of feldspar (such as is mined at Galesburg, Ill.) Last, but not least, I can show you a mountain of asbestos rock lying on top of the ground; can show you one fireplace that has been in use 40 years, and a tombstone that is made of it has been standing 20 years. All this is in these mountains, and I can show them. I have cleaned out three or four old shafts and tunnels that were worked by Mexicans 150 years ago. Many old crushers and smelters are to be seen. They used this asbestos rock for lining their smelters. They always built them near a stream. In the mouth of one of these shafts, so a man 76 years old told me, a hackberry tree had grown up 40 years ago. He cut it down and sawed it off and the rings show it to be 80 years old. I will say the marble, granite and ore are there and in paying quantities, only waiting for capitalists to buy it from the rancher.

In one place in the Llano mountains there is a New York firm whose representative comes down here once or twice a year, hires 8 or 10 men for three or four weeks, takes out seven different kinds of rare minerals and ships them to New York. I do not know what they use it for. I have seen some of the rock they ship; it is coal black and in nugget form. I think they call it Libermonte. I know it must be of considerable value, as the place was discovered by a New Yorker five years ago and last year he paid the owner \$5000 for his place. They do not mine it, as it is not in ledge form; it is more like excavating. They are very careful, and never give you any information.

D. F. BROOKS.

Taylor, Texas.

Arkansas Zinc and Lead.

The North Yellville Immigration Co. of Fort Smith, Ark., writing to the *MANUFACTURERS' RECORD* about the zinc and lead fields of North Arkansas, says:

"One-third of Marion county is owned by non-residents, who are waiting for the other fellow to develop the mines. If we could get in touch with them through the *MANUFACTURERS' RECORD* and let them know what is actually going on they would take hold and begin to develop their own property, and that is what we are working for. Week before last the Susquehanna mine shipped a car of concentrates that sold on the basis of 64 per cent. This was the best carload of ore that has been shipped out of the North Arkansas fields.

"There is one thing that North Yellville needs at the present time which will be a big benefit to our town and a bigger benefit to the mine operators of that country, and that is a small machine shop. There are 11 producing mines, and others developing. As it is now, if a piece of machinery

breaks it necessitates a lay-off of a week, for the closest machine shop is Joplin, Mo., 160 miles away, or Memphis, Tenn., 225 miles. We would like to get a good man to open a machine shop with a small foundry attached and do custom work. He can sell a world of drills and machinery right there at the present time. If you know of anyone we would appreciate it if you would put him in touch with us. A practical mechanic with \$5000 or \$10,000 capital can in a very short time have as fine a business as any man could want."

Operations in West Virginia.

To the numerous companies that are at present operating on an extensive scale in the coal fields of West Virginia will soon be added that of the Mingo Block Coal Co. of Williamson, which recently organized and invested a large amount of capital in the purchase of 7000 acres of coal lands in the Tug river field. It is stated that the character of coal is the Winifrede white-ash variety, a high-grade block coal of semi-cannel nature, showing less than 2 per cent. ash. For the development of this property the parent and subsidiary interests contemplate the installation of five mining plants simultaneously, each to have an average capacity of 1000 tons per day. Dr. Henry Mace Payne, civil and consulting engineer of Williamson, has been appointed general superintendent and chief engineer of the parent company. Mr. M. E. Lawson will be the manager of mines 1, 2 and 3, and S. E. Beddall manager of mines 4 and 5. Those who were prominent in the organization of the Mingo Block Coal Co. are Messrs. Meredith E. Lawson, Boston, Mass.; Harry Lawson, Williamson, W. Va.; V. L. Highland, Clarksburg, W. Va.; George M. Whitescarver, Grafton, W. Va.; Charles G. Dobbins, Wheeling, W. Va.; Isham Keith, Clarksburg, W. Va.; Sheridan R. Griffith, Clarksburg, and associates.

Coal Lands and Briquets.

A company of which Mr. L. E. Kenney is president and C. N. Gilbert, vice-president and general manager, both of Fort Smith, Ark., has organized with a capital stock of \$350,000 for the purpose of developing coal property and manufacturing coal briquets at Bates, Ark. The holdings of the Seymour Coal Co. at Bates, consisting of an open mine and 1010 acres of coal lands, under which there is said to be a vein of coal ranging from six to nine feet in thickness, have recently been purchased, and operations are now progressing. The company is at present working two openings and shipping about four cars of coal per day, but contemplates making the manufacture of briquets the most prominent feature of its operations. Its vice-president is reported as saying that the first press, to have a daily capacity of 200 tons of briquets, has been ordered and is expected to be ready for operation by the first of next year. The plant will be erected at the mines at Bates and will be capable, it is stated, of making briquets without the use of tar, pitch or rosin for binding the coal together. General offices will be maintained at Fort Smith.

Mississippi Minerals.

Aside from the clay and cement resources of Mississippi, several other mineral products would seem to promise future importance, says a bulletin of the United States Geological Survey. Ocher, glass sand, tripoli and fuller's earth occur, apparently, in deposits of workable size. The lignites of the State are worthy of attention, particularly for local use in clay works, etc.

No metallic ores are known to occur in Mississippi in deposits of workable size, and the prospect of finding such deposits seems very poor.

The calcareous and greensand marls of the State deserve study, particularly in view of the great importance of Mississippi as a cotton producer. At present every pound of fertilizer used on Mississippi plantations is imported from other States. It seems probable that much of this importation could be avoided by the development of the local greensand marl deposits, some of which carry appreciable percentages of phosphoric acid.

Indications of Rich Ores.

In an interview as published in the San Antonio (Texas) *Express* Mr. P. E. Long, a prominent well-driller of that city, expresses the opinion that there are several valuable ores to be found in Bexar county not far from San Antonio. Among these he states that there is an abundance of silver of a remarkably fine grain, while the copper specimens which he has found have every appearance of being rich ore. He says also that there is an abundance of very fine glass-making sand, beside oil rock in certain sections which indicates the existence of asphaltum, said to be the basis of crude oil. It is understood that Mr. E. W. Parker, a Government geologist, will begin an investigation of the deposits within a few weeks.

Big Purchase in West Virginia.

A large purchase of coal lands in the New River-Pocahontas field of West Virginia has been consummated by Messrs. Beckwith & McGrath of Cleveland, Ohio, for a number of Cleveland and other capitalists. The property is said to consist of about 30,000 acres located in Raleigh and Wyoming counties and formerly known as the Mabin-Hotchkiss tract. It is understood that a company will be organized in the near future for the development of the coal, transportation facilities to be had by a connection with the Chesapeake & Ohio, Norfolk & Western and the Deepwater railway systems.

Kaolin Mining, Etc.

The Saxe-Gotha Mining Co. of Columbia, S. C., referred to in this column last week as organizing with a capital stock of \$100,000 for the purpose of developing clay and quartz lands, etc., is announced to begin operations at once. It is stated that the company has obtained mining rights on a number of kaolin and clay tracts in the Killians section of Richland county, and will develop these. Officers of the company are Messrs. J. A. Summersett, president; W. S. Monteith, vice-president; E. Stork, secretary, and E. McClarkson, treasurer.

Mining Notes.

Messrs. W. R. Thompson, T. J. Bryan, E. M. Watts, W. E. Bush and J. M. Hawkins of Huntington, W. Va., have incorporated the Sibley Coal & Coke Co. of Panther, W. Va., with a capital stock of \$100,000.

Roanoke Water-Power Co.

Electricity for lighting and power purposes is now being furnished in Roanoke, Va., by the Roanoke Water-Power Co. This company recently completed its plant, mention of which had been made previously by the *MANUFACTURERS' RECORD*. It has erected a concrete dam 400 feet long and 45 feet high, developing 2500 horse-power for transmission by electricity. Three turbine wheels of 1000 horse-power each and one of 500 horse-power, two generators of 1000 horse-power each and one of 500 horse-power are used. Three wires carry the current of 1000 volts, which is transformed into 2300 in Roanoke for distribution to consumers. Mr. W. N. Camp is president and R. C. Camp general manager of the company.

RAILROADS

[A complete record of all new railroad building in the South will be found in the Construction Department.]

L. & N. ANNUAL REPORT.

Gain of Over 11 1/2 Per Cent. in Gross Earnings—Ten Years' Progress.

The fifty-fifth annual report of the Louisville & Nashville Railroad Co. exhibits the growth and progress of one of the leading transportation corporations in the South. The report covers the fiscal year ended June 30, 1906, and shows gross earnings \$43,008,996, as compared with \$38,517,070 for the next preceding fiscal year, the gain being about \$4,491,000, or more than 11 1/2 per cent.; the net earnings were \$12,075,532, as compared with \$12,027,049 for the preceding year; the operating expenses were \$30,933,463, while for the previous year they were \$26,490,020. The increase in the operating expenses was principally for conducting transportation, the cost of which advanced about \$2,130,000; in maintenance of equipment, the cost of which increased about \$1,445,000, and in maintenance of way and structures, the cost of which increased about \$835,000. These increases explain the small gain in the net earnings of the company. The percentage of operating expenses to gross earnings was 71.92 per cent., while last year it was 68.77 per cent. The total income of the company was \$13,642,308, and after the payment of interest on the bonded debt, taxes and rentals, payments to sinking funds, etc., there was left a net income of \$6,348,374. From this two dividends of 3 per cent. each were paid, leaving a surplus to profit and loss of \$2,748,374 and making the total balance to credit of profit and loss \$18,130,045.

Concerning the increase in operating expenses the report says that they are accounted for mostly by increased cost of labor and materials, the rebuilding of the union passenger station destroyed by fire at Louisville, Ky.; heavy repairs made on equipment in use during the World's Fair, the yellow fever for five months on the Southern divisions and the unusual number of destructive accidents. Excepting these, locomotive repairs also increased over 50 per cent., this being due to heavy repairs required upon the increased number of engines, including 20 old engines taken over with the Atlanta, Knoxville & Northern Railway, and to repairs which were deferred during the removal from the old to the new shops at South Louisville, during which time there was a phenomenal increase in traffic and consequent additional strain on motive power.

The income account shows that the earnings from freight traffic were \$31,536,206 and the earnings from passenger traffic were \$8,985,215; the earnings per ton per mile were 803 thousandths of a cent and the earnings per passenger per mile were 2.434 cents. The earnings per ton were 128.437 cents, and the earnings per passenger were 82.79 cents; the ton mileage was 3,925,707,333, and the number of tons carried was 24,553,832; the passenger mileage was 362,745,093, and the number of passengers carried was 10,666,500.

The report notes the opening for freight traffic of the new low-grade line between Knoxville & Atlanta via Etowah, Tenn., and Cartersville, Ga. This line has grades of .65 per cent., and is known as the Cincinnati-Atlanta Line, but the reduction of grades between Corbin, Ky., and Saxton, Ky., is not yet finished. The report also notes the purchase of the Chesapeake & Nashville Railway, 36 miles long, from Gallatin, Tenn., to Scottsville, Ky., and the Middle & East Tennessee Central Railway, about 11 1/2 miles long, from Hartsville Junction to Hartsville, Tenn. The company also acquired legal title to the

Henderson Bridge & Railroad from Henderson, Ky., to Howell, Ind., 10 miles, and the Yellow River Railroad from Florala, Ala., to Crestview, Fla., 26 1/2 miles, both these lines having heretofore been controlled by the company.

The company has now under consideration, or has completed during the year, additions and improvements authorized by the board of directors aggregating \$19,959,474.84, distributed as follows: For grade reductions and double track, \$7,592,738.71; for new railroads, extensions and branches, \$6,624,773.64; for new equipment undelivered June 30, 1906, \$2,472,732.84; for new terminal facilities, \$3,269,229.65, making total as above.

The company owns and operates 4205 1/2 miles of road, of which 3258 miles are owned. The average mileage operated during the year is 4131 miles. The company's gross earnings per mile were \$10,411.50, and the net earnings per mile were \$2923.21. Besides these lines, the Louisville & Nashville owns a majority of stock or else is interested as joint owner or lessee in 2367 miles of additional railroad, including the Nashville, Chattanooga & St. Louis Railway, 922 miles; the Georgia Railroad and dependencies, 571 miles; the Chicago, Indianapolis & Louisville Railway, 591 miles, and the Louisville, Henderson & St. Louis Railway, 182 miles (these figures in one or two instances being less the mileage operated by the Louisville & Nashville under trackage arrangements); also the Birmingham Southern Railroad, the Yellow River Railroad and the Chesapeake & Nashville Railway. The company also owns 269 miles of road which is leased to other companies, making its total mileage owned or otherwise controlled 6842 miles. Most of the main track of the company is laid with 70 and 80-pound rail, although there are 306 miles having rail of 60 to 68 pounds per yard, and 884 miles with rail weighing 58 1/4 pounds per yard. Rail lighter than the latter figure is used on 168 miles of line.

The equipment of the company consists of 725 locomotives, increase 20; 535 passenger cars, increase 20; 36,386 freight cars, increase 3145, and 1289 roadway cars, increase 140. The North & South Alabama Railroad also has 20 locomotives and 247 freight cars.

The growth of traffic on the Louisville & Nashville is shown by a table covering 10 years from 1896-1897 to 1905-1906. In that time the average mileage operated has increased from 2981 miles to 4131 miles, and the gross earnings have increased from \$20,372,307 to \$43,008,996.

"COTTON BELTS" REPORT.

Good Showing in Spite of Conditions—Immigration and New Industries.

The fifteenth annual report of the St. Louis Southwestern Railway Co., covering the fiscal year ended June 30, 1906, shows gross earnings \$8,980,564, increase, as compared with the preceding year, \$129,332; operating expenses \$6,699,444, increase \$480,071; net earnings \$2,290,119, decrease \$350,738; total income \$2,452,706, decrease \$371,126; surplus \$697,054, after the payment of interest, rentals and taxes, a decrease of \$477,187; total balance to credit of profit and loss \$3,731,932.

The company suffered a decrease in its earnings owing to the strict yellow-fever quarantine regulations which prevailed for three months over the entire territory traversed by its lines, yet in spite of that the decrease in passenger earnings was less than 4 per cent., the actual figures being \$68,463, or 3.84 per cent. Moreover, comparison being made with a year when the World's Fair traffic at St. Louis caused an abnormal increase in the passenger earnings, the results of the past

year do not appear as favorably as they otherwise would. The increase in freight earnings was \$121,740, or 1.85 per cent., notwithstanding that the decrease in earnings from the transportation of cotton was approximately \$400,000 because of the short crop and also on account of the quarantine. Yet the general traffic movement increased sufficiently to offset this.

Mr. F. H. Britton, vice-president and general manager, says:

"For many years it has been the policy of the management to induce and assist immigration into the territory along and tributary to the rails of the company and to encourage the location of new industries along the line. The results of this policy have been gratifying for several years, but more so during the past year than ever before. Thousands of acres of wild lands have been brought into cultivation, and large numbers of the better class of farmers from the older States have located along the line, opening up and developing new sections which have heretofore been untouched. This development has been general along the line, but is particularly marked in Southeast Missouri and North Arkansas in what is known as the St. Francis basin, where, by systematic drainage, thousands of acres of land have been reclaimed and cultivated. This section, once considered a worthless swamp, is now attracting considerable attention. In East Texas many large peach orchards have been established, which are now beginning to bear fruit, and many acres of land are planted in vegetables. The success of this section is now assured, its adaptability for the raising of fruits and vegetables having been demonstrated.

"The industrial development along the line has kept pace with the agricultural development, and many new plants have been established, notably sawmills, planing mills and other woodworking factories, cotton gins, quarries, sewer and drain-pipe factories, ice plants and commercial houses of various descriptions.

"The traffic outlook for the coming year is excellent. Although the cotton crop for the season 1906-1907 is not made at the date of this report, an abundant yield is indicated. There is a strong and ever-increasing demand for yellow-pine lumber and its products, and the trade in other woods is good, these conditions justifying the belief that the movement of forest products will be regulated solely by the car supply. Other lines of trade are in a healthy condition, and the general prospects are quite encouraging for an increased freight and passenger traffic movement during the ensuing year."

Concerning the increase in the operating expenses, which amounted to very nearly 7 1/2 per cent., it is said that the expenditures for maintenance of way and structures increased \$327,112, which is attributable to the cost of labor employed in laying heavier rails, to the increased number of crossties then placed in the track and to the proportion of the excess cost of the new rail, besides the extensive repairs and renewals to bridges and buildings. The equipment was well maintained, the charges to that account increasing \$227,576, yet operating expenses, so far as conducting transportation was concerned, showed a decrease of about one-quarter of one per cent.

The company has continued improvement work, such as changing rail, adjusting grades, ballasting, strengthening bridges, enlarging shop facilities, etc., and work of these various classes will be continued during this fiscal year. During the past year orders were placed for 20 locomotives, five for the passenger service and 15 for the freight service. The company has also secured the use of the Iron Mountain new union passenger station and terminal at Pine Bluff, Ark. The

company granted the use of its new brick passenger station at Waco, Texas, to the San Antonio & Aransas Pass Railway, the station also being used jointly by the International & Great Northern. Work on the new bridge of the Shreveport Bridge & Terminal Co. over the Red river at Shreveport, La., has progressed slowly; but five of the eight piers were completed at the close of the fiscal year, and rapid progress should now be made. This is controlled by the company.

The company carried 2,855,520 tons of revenue freight and the revenue ton mileage was 683,297,713, the average revenue per ton was over \$2.34 1/2 and the average revenue per revenue ton per mile was ninety-eight-one-hundredths of a cent. The number of passengers carried was 1,670,509 and the passenger mileage was 71,869,707, the average revenue per passenger was over \$1.02 1/2, and the average revenue per passenger per mile was 2.38 cents.

The company has 1451 miles of line, an increase of 33 miles during the year; 183 locomotives, 161 passenger cars, 9816 freight cars and 680 work cars.

WABASH ANNUAL REPORT.

Gain in Earnings, But Decrease in Expenses—The Pittsburg Extension.

The seventeenth annual report of the Wabash Railroad Co. displays increases except in expenses. It covers the fiscal year ended June 30, 1906, and shows gross earnings \$25,015,378, increase as compared with last year \$318,778; net earnings \$6,937,491, increase \$2,744,335. A particularly satisfactory feature is the decrease in operating expenses, which amounted to only \$18,077,887, or \$2,425,557 less than last year, and this notwithstanding that there was an increase in the gross earnings.

It is particularly noted that the previous year of 1904-1905, being abnormal on account of the World's Fair at St. Louis, the results for the fiscal year of 1903-1904 are also included for purposes of comparison. These latter show that then the gross earnings were \$23,023,626, operating expenses \$17,683,508 and net earnings \$5,340,117. It is also noted that as compared with the World's Fair year the passenger earnings last year showed a large decrease, but this was a little more than made up by the freight earnings, which increased more than 18 per cent. It is further noted that the opening of new rail lines between Chicago and St. Louis and between St. Louis and Kansas City, besides the competition of electric railways in both Illinois and Indiana, contributed to the falling off in passenger earnings, and it is also stated that the margin of profit in passenger business being small as compared with the service demanded, freight traffic must be largely looked to for net revenue.

Referring to the decrease in operating expenses the report says that the stockholders may be assured that the property has been fully maintained and that economies were made either by employing better methods or in cases where appearances could be sacrificed for actual necessity. Economies were made through almost every item of operating expenses, and the items under the head of conducting transportation display handsome decreases as the result of an increased trainload of about 16 per cent. Much money was spent for ballasting and for heavier rail, and other money also charged to operating expenses and appropriated out of surplus earnings was expended for new equipment, car shops, double track, etc., besides yard improvements. The facilities of the company have also been increased at points where necessary, and preparations have been made to enlarge the facilities at other cities.

Concerning the Pittsburg improvement the report says: "The Wabash is also beginning to feel the benefit of the Pittsburg extension, and it is hoped that the next fiscal year will reflect largely the result of the heavy expenditures at Pittsburg."

The Wabash Railroad Co. operates a total of 2072 miles of line connecting Pittsburg, Chicago, Buffalo, St. Louis, Kansas City, Des Moines, Omaha and intermediate points. It has 574 locomotives, 448 passenger cars and 18,969 freight cars.

New Equipment.

The Louisville & Nashville Railroad will, it is reported, build at its Birmingham shops 50 ore cars of 100,000 pounds capacity each, 4 vestibule passenger cars and 8 regular passenger cars.

The Chesapeake & Ohio Railway, according to report, will purchase 2000 steel coal cars.

The Mobile, Jackson & Kansas City Railroad has ordered 20 flat cars from the Western Steel Car & Foundry Co.

The Missouri Pacific Railway is expected to soon place an order for cars.

The Texas & Pacific Railway will, it is said, build six large passenger cars in its shops at Marshall, Texas.

The Norfolk & Western Railway is contemplating placing orders for both freight and passenger cars.

The St. Louis Southwestern Railway proposes to build 450 freight cars at its shops at Pine Bluff, Ark.

The Seaboard Air Line will purchase 1000 box cars and 1000 gondola cars.

The Atchison, Topeka & Santa Fe Railway is reported to have placed car orders as follows: 1600 gondola cars of 100,000 pounds capacity, 500 refrigerator cars, 500 stock cars and 400 ballast cars with the American Car & Foundry Co.; also 2500 box cars of 70,000 pounds capacity with the Standard Steel Car Co. The same railroad company has also ordered from the Pullman Company passenger equipment as follows: 21 first-class coaches, 20 chair cars and 20 smoking cars. All this equipment is to be delivered between February and June next year excepting the refrigerating cars, which are to be delivered in December.

The Harriman lines have ordered from the St. Louis Car Co. 113 coaches, some of which will be placed on the Southern Pacific Railway, the Galveston, Harrisburg & San Antonio Railroad, Morgan's Louisiana & Texas Railroad and the Louisiana Western Railway.

LINE IN RICH REGION.

Overton County Railroad to Build Extension to Coal and Oil Fields.

Mr. E. C. Knight, general counsel, secretary and treasurer of the Overton County Railroad, Livingston, Tenn., writes the MANUFACTURERS' RECORD concerning the proposed extension from Livingston to Burnside, Ky. He says: "We expect to begin construction this fall and push right through to completion. The project has been financed, survey made and right of way obtained. The extension will be 76½ miles long, making a total of 96½ miles, including the 20 miles now in operation from Algood to Livingston. We will connect with the Southern Railway on the west end and with the Queen & Crescent Railway on the east at Burnside."

"The line will pass through part of Putnam, Overton and Pickett counties, Tennessee, and Wayne county, Kentucky. It will penetrate one of the richest and best undeveloped countries in the South, abounding in virgin forests of all kinds of timber, but mostly oak and poplar. The line will run for 20 miles below a five-foot seven-inch coal vein that will be mined from the mountainside by drift and run down to the railroad track. The road will

also go through the famous oil fields of Tennessee and Kentucky, where many oil wells are now producing and many other wells are expected to come in every day. We are not far from the Standard Oil Co.'s pipe line from Pickett county, Tennessee, to Somerset, Ky., our railroad and the pipe line running almost parallel.

"The extension will open up a territory heretofore almost unknown, but very rich in all kinds of minerals and timber."

MARYLAND ELECTRIC.

A Line to Washington Under Consideration—Other Work Under Way.

The Maryland Electric Railways Co., which has been organized in Baltimore for the purpose of building extensions from the system of the United Railways of this city, besides car barns and other buildings for that company, is now considering a plan to build its own line from Baltimore to Washington, although no announcement has yet been made that such a line will be built. The company has absorbed the Baltimore & Annapolis Short Line Railroad, 27 miles long, from Baltimore to Annapolis, Md., and it is to be converted to an electric railway.

The Maryland Electric Railways Co. recently made arrangements with a Baltimore syndicate to float \$4,000,000 of bonds, and it has the right to issue \$1,000,000 additional. About \$1,000,000 of the first instalment has already been disposed of, and active work has begun on some of the plans of the company.

SEABOARD TO CHARLESTON.

Steps Taken to Build a Line There—Engineers in the Field.

The Seaboard Air Line has applied for a franchise at Charleston, S. C., for permission to enter that city, and it is reported from there that an extension will be built from Lugoff, near Camden, S. C., about 105 miles, direct to Charleston. Mr. W. L. Seddon, chief engineer of the Seaboard, has visited Charleston in connection with the application for the franchise, but he declined to talk about the route there. It is, however, stated that the company has engineers at work surveying. Mr. Seddon is reported as saying that he soon hopes to be in a position to say something definite about the road entering Charleston.

Elkhorn Southern.

Mr. W. A. Doane, principal assistant engineer of the Meadows Company, builders and contractors, writes from Bristol, Tenn., to the MANUFACTURERS' RECORD that the Elkhorn Southern Railway Co. is to build a line about 45 miles long through coal land from Elkhorn, Ky., on the north to Dante, Va., on the south, connecting with the Chesapeake & Ohio Railway and the Lick Creek & Lake Erie Railroad. Location is in progress, but bids for construction have not yet been requested. George L. Carter is president and M. J. Caples vice-president and general manager. Both hold like positions with the South & Western Railway.

Big Rail Order.

The Baltimore & Ohio Railroad Co. has ordered 66,000 tons of steel rails for delivery in 1907, the order being distributed thus: Maryland Steel Co., 11,500 tons; Cambria Steel Co., 17,400 tons; Carnegie Steel Co., 37,100 tons. There will be 41,000 tons of 85-pound rails and 25,000 tons of 100-pound rails in this order. At the present market price of \$28 per ton the contracts represent an expenditure of \$1,848,000.

Railroad Notes.

The Southern Railway Co. announces the following appointment: J. C. Moroso,

soliciting freight agent, Selma, Ala., vice Morgan Richards, resigned.

Mr. C. H. Bosler of Dayton, Ohio, who is president and general manager of the Tulsa Street Railway Co. of Tulsa, I. T., informs the MANUFACTURERS' RECORD that four miles of street railways are now being built, and that an amusement park is to be established in connection with the line. The park will contain a convention hall, a rink, a theater, a dance hall and other amusement features.

The Railway Audit & Inspection Co. of Norfolk, Va., has been granted a charter. Mr. E. C. Hathaway, the president, is reported as saying that the company is not a new organization. Its object is to audit and inspect railways and also to bond conductors and other employees. The capital is from \$25,000 to \$100,000, and the other officers are H. N. Brown of Philadelphia, vice-president, and W. H. Taylor of Norfolk, secretary-treasurer.

A 285-Mile Oil-Pipe Line.

A decision of considerable interest in connection with the development of the oil fields of West Virginia has been announced. It comprises the fact that the Pure Oil Co. of Philadelphia, Pa., offices in the Manhattan Building, will lay a pipe line to convey natural gas from Pine Grove in Wetzel county, West Virginia, to Marcus Hook, outside of Philadelphia. The distance is about 285 miles, and the line will be a six-inch pipe to be manufactured and laid at a cost of approximately \$1,000,000 and be in operation within 12 months. The company will issue additional stock to that amount, the present stockholders having subscribed the entire amount. This enterprise has been confirmed in special telegraphic advices to the MANUFACTURERS' RECORD.

Should Have Many Industries.

In referring to the manufacturing possibilities in and around Waco, Texas, Andrew Goddard of that city writes the MANUFACTURERS' RECORD as follows:

"The Bosque river, which flows into the Brazos just above Waco, in McLennan county, Texas, affords rare opportunities for locating factories of all kinds. The fall is good throughout its entire length. Both banks have fine timber—elm, oak, walnut, pecan, cedar and mulberry—all suitable for making furniture. This is in the best of the Texas cotton belt. The water is pure and clear. All kinds of manufacturing establishments should line the river banks for 50 miles."

For Representation in Cuba.

The future development of the Island of Cuba will doubtless be the means of calling for more American-made products of all kinds. With this in view Mark Cooper of Salisbury, Md., intends to locate in Cuba and establish sales offices for general machinery and supplies. Mr. Cooper invites correspondence from manufacturers who will consider arranging with him for agencies. Engines, boilers, dynamos and other electrical equipment, plumbers' supplies, telephone instruments and accompaniments, contractors' and builders' supplies especially are contemplated.

Conventions at Jamestown.

More than 60 conventions of one kind and another are to meet within the next three or four weeks, and representatives of the Jamestown Exposition will endeavor to persuade them to hold their next annual meeting at the exposition. It is stated that already a sufficient number of conventions have been arranged for Norfolk in 1907 to bring more than 500,000 persons to the city, and the business interests there will be asked to subscribe at least \$50,000 toward entertaining the gathering.

LUMBER

[A complete record of new mills and building operations in the South will be found in the Construction Department.]

North Carolina Pine Association.

The semi-annual convention of the North Carolina Pine Association, which was held in Charleston, S. C., last week, is generally considered as of being of more than ordinary importance to its members. The convention was called to order by President E. C. Fosburgh of Norfolk, Va., who introduced Mayor Rhett of Charleston. Mayor Rhett was very cordial in the delivery of his address of welcome, which was responded to by President Fosburgh. Treasurer W. B. Roper, Secretary John R. Walker and Chief Inspector Morris of the association read their reports, which were of a satisfactory character. Papers were read by Messrs. J. A. Brown of Chadbourne, N. C., on the "Anti-Trust Laws and Lumber Trade Association;" A. C. Tuxbury, on "North Carolina Pine and Its Competitors;" R. J. Alderman of Alcolu, S. C., on "Southern Pines," and Secretary George K. Smith of the Yellow Pine Manufacturers' Association, on "The Co-operation of the Southern Pine Associations." The closing session of the meeting was marked by a discussion of the car situation, and resolutions were adopted referring the matter to the transportation committee, with the suggestion that the committee address the railroads on the subject and urge that they give better service and facilities for hauling lumber. A committee was authorized to be appointed by the president to confer with the building committee of New York city regarding a threatened embargo of Southern pine for framing purposes. Mr. Vincent B. Coates of Kansas City read a paper on the subject of fire insurance as it affected sawmills, which commanded a good deal of attention. A pleasing feature of the convention was a banquet held on the evening of the 11th, at which addresses were made by Governor Heyward, Mayor Rhett, Col. G. G. Greenough, U. S. A., and others. The next meeting, which will be the annual convention of the association, will be held in Norfolk, Va., next March.

Lumber Manufacturers.

At a meeting last week of the Georgia-Florida Sawmill Association at the Piedmont Hotel, Atlanta, Ga., which was participated in by a number of operators from Georgia, Florida, Alabama and North and South Carolina, plans for improving the car situation were very fully discussed, as was also the scarcity of labor, together with other conditions. Mr. W. D. Stillwell of Savannah was elected temporary chairman of the meeting, and E. C. Harrell of Tifton, temporary secretary. Reports of various committees were read by the chairman, and Secretary John R. Walker of the North Carolina Pine Association presented the need of new means of giving publicity to lumber prices. Messrs. L. A. Boyd and J. H. Eddy of Alabama spoke of the prevailing conditions in that State, and Secretary Harrell urged means to procure inquiries for the establishment of a current price. He suggested the employment of an officer to procure the necessary statistics, and President Stillwell indorsed the proposition. A motion was adopted calling upon the members of the association to request the railroads to furnish a sufficient number of cars, in connection with which it was decided also to request the State railroad commissions and the Interstate Commerce Commission to adopt a reciprocal interstate demurrage rule. By resolution the immigration committee of the association was directed to consider plans for securing immigrant

labor. The following new members were elected to membership in the association: King Lumber Co., Furman, Ga.; J. W. Winters, Holly Branch, and Frank G. Lake, Tifton, Ga.

To Establish Sawmill.

The Graham-Todd Lumber Co., recently incorporated, is reported as making active preparations to establish a modern sawmill plant at Gertrude, Texas, on the International & Great Northern Railroad, for the purpose of developing about 100,000,000 feet of virgin pine timber which it controls in that vicinity. The plant, it is stated, will contain a circular saw with shotgun feed and other modern equipment, and have a capacity of about 60,000 feet per day. Steam dry-kilns will be constructed and with the planer are expected to be ready for operation as soon as the plant shall have been equipped, machinery for which, it is understood, has already been shipped. The timber to be developed is said to have formerly belonged to the Miller & Vidor Lumber Co. of Galveston, which will handle the entire production of the new company. Officers of the Graham-Todd Lumber Co. are Messrs. H. A. Melat, president; H. L. Graham, vice-president and general manager; G. W. Graham, second vice-president, and W. L. Todd, secretary. The officers, with Mr. T. E. Meece, constitute the board of directors.

Improvements in Fort Worth.

According to an estimate as published by the *Record* of Fort Worth, Texas, building improvements which have been started in that city and suburbs during the year, or are in immediate contemplation and likely to start before the year closes, represent an aggregate of \$5,576,812. Official figures have not been obtainable, but those presented are compiled from records in the offices of the architects and are considered accurate, the figures so compiled showing that \$1,535,050 will have been expended for business buildings and \$697,600 for residences. For work done without the supervision of an architect it is estimated that the value will reach a total of \$558,162, and for buildings, both business and residence, in immediate contemplation, \$736,000. Other estimates are for betterments for public utility corporations, \$734,500; municipal expenditures in Fort Worth proper, \$239,300, and for North Fort Worth, \$152,000; church and addition to Catholic infirmary, \$248,000, and churches in immediate contemplation, \$50,700.

To Erect Saw and Planing Mill.

In connection with its recent purchase of the timber and holdings of the Standard Lumber Co., a report of which appeared in this column September 27, the Louisiana Central Lumber Co. of Clarks, La., advises the MANUFACTURERS' RECORD that it expects to erect a double-band mill in Catahoula parish, together with a planing mill and such other improvements as will make a modern lumber plant, construction work to begin as soon as plans and details can be perfected. The timber secured from the Standard Lumber Co. adjoins the holdings of the purchasing company. Officers of the Louisiana Central Lumber Co. are Messrs. J. B. White, president; W. B. Pettibone, vice-president; J. T. Whitehead, secretary; G. W. Dulaney, treasurer; C. E. Slagle, general manager.

Sale of West Virginia Timber.

Messrs. O. C. Crane and James S. Lakin of Terra Alta, W. Va., are reported in a dispatch from Grafton as having closed negotiations with a number of Morgantown, W. Va., and Pennsylvania capitalists for the sale of 5000 acres of timber

on Roaring creek. The property, it is stated, was recently purchased by Messrs. Crane & Lakin, and embraces the old Preston tannery tract, together with a number of other tracts, extending to Cheat river and the Morgantown & Kingwood Railroad. The consideration is stated at \$68,000.

Sawmill Plant Begun.

Construction work on the proposed sawmill plant at Stony Creek, Va., for J. S. Newell of Freeman has been started by George L. Borum of Suffolk, who has the contract for erecting the plant. The mill building will be 69x163 feet, and power will be furnished by six boilers of 100 horse-power each, operating a 470-horse-power engine. The plant is expected to be under construction about six months, and will cost approximately \$75,000. Its capacity will be about 100,000 feet daily.

European Demand for Pitch Pine.

According to a statement attributed to Mr. Carl Rensing of Antwerp, Belgium, who is in New Orleans, La., to purchase a supply of lumber from Louisiana and Texas mills, pitch pine is in great demand in the markets of Europe, especially in Belgium. Mr. Rensing is reported as saying that the price paid for pitch pine is higher this year than usual, and that all branches of the lumber industry in Holland and Belgium are prospering to a degree which is astonishing.

Lumber Notes.

Turpentine operators of Orange and adjoining counties, Florida, held a meeting at Orlando last week.

The next semi-annual convention of the National Hardwood Lumbermen's Association will be held at Cincinnati, Ohio, October 25 and 26.

Messrs. Joseph Bennor, T. J. Carling and Walter A. Harris have incorporated the Bennor Naval Stores Co. of Macon, Ga., with a capital stock of \$25,000 for the purpose of manufacturing naval stores, etc.

The sawmill of the Riverside Land Co., Waycross, Ga., which is under construction on the Satilla river near the Atlantic Coast Line Railroad, is nearing completion, and will probably be ready for operation within two weeks. Equipment for the plant has been received and will be installed at once.

To Supply Natural Gas.

It is announced that arrangements have been completed for the organization of the Oklahoma Natural Gas Co., which proposes to construct pipe lines from Oklahoma and Indian Territory fields to Oklahoma City, Guthrie, Shawnee, Enid and other cities. The company is capitalized at \$3,000,000, and its incorporators are Messrs. H. M. Byllesby and Arthur S. Huey of Chicago, Henry M. Blackmer of New York, Dennis T. Flynn and C. B. Ames of Oklahoma City. Applications have been made for franchises in the cities named, and as soon as they are granted the construction of the pipe lines will begin, it being reported that all contracts have been awarded. It is said the gas will be supplied for domestic purposes at 35 cents per thousand feet and at a special rate for industrial purposes.

Southern Representatives Needed.

It is proposed to perfect arrangements that will result in the general introduction of the Buffalo Weaving & Belting Co.'s belting throughout the South. This will necessitate the appointment of various agencies, and correspondence is invited. Messrs. John Boyle & Co., 110 Duane street, New York, sole agents, can be addressed.

TEXTILES

Cherry Mill Improvements.

During August the MANUFACTURERS' RECORD referred to the Cherry Cotton Mills of Florence, Ala., as having awarded contract for a new steam plant to replace the old equipment. This improvement work has been in progress lately, and required the mill to cease operations for eight weeks. The company's former 400-horse-power boilers are replaced with four boilers of 169 horse-power each, a total of 676 horse-power, each boiler equipped with 81 four-inch tubes. This week operations were resumed with 200 operatives. The Cherry Cotton Mills has 11,008 spindles.

Betterments for Randolph Mill.

Some betterments are being provided to the mill of the Randolph Manufacturing Co. at Franklinville, N. C. They include the erection of a second story to the baling-room, which is 35x52 feet in size, and the installation of new machinery, for which contract has been awarded to New England manufacturers. The new machinery will include eight spinning frames of 208 spindles each, 54 looms, five cards, two drawings and three fly frames. Additional operatives' cottages will also be erected. The company has been operating 4400 spindles and 148 narrow looms.

Dan River Mill News.

Last April the MANUFACTURERS' RECORD referred to the Dan River Power & Manufacturing Co. of Danville, Va., as having awarded contract to the George W. Stafford Company of Readville, Mass., for 1100 looms. During the past week the weave shed of the Dan River mill was completed, and the improved looms are now being placed in position. The mill company is also proceeding with the other construction work involved in doubling its plant, heretofore 43,000 spindles and 1614 looms.

Textile Notes.

The Board of Trade of Fort Worth, Texas, is planning to organize company to establish a knitting mill.

The Coosa Manufacturing Co. of Piedmont, Ala., is extending its picker-room and building a machine shop.

Reported that the Fort Mill (S. C.) Manufacturing Co., manufacturer of cotton goods, will build a bleachery at a cost of \$12,000.

It is rumored that the Ragland Water-Power Co., in which W. T. Brown of Gadsden, Ala., and others are interested, is planning to locate a cotton mill.

It is reported that the Opelika (Ala.) Cotton Mills has awarded contract for 2500 additional spindles, being the second order of this extent during 1906. The company operates an equipment of 14,500 spindles. It has recently completed a new finishing mill.

The Fulton Bag and Cotton Mills of Atlanta, Ga., has awarded contract for machinery costing about \$85,000, the equipment for its branch plant at Dallas, Texas. This company was referred to several weeks ago as having awarded contract for its Dallas building, a five-story structure costing \$80,000. Bags, twine, etc., will be manufactured for the Fulton trade in the Southwest.

Cottonseed Sacking Plant.

It is announced that the Illinois Central Railroad has contracted with the French Oil Mill Machinery Co. of Piqua, Ohio, for the erection of a cottonseed sacking plant at Harahan, near New Orleans, La., which will have a nominal capacity of 1500 tons per day. The French Oil Mill Machinery Co. is represented in New Orleans by Messrs. Charles L. Smith & Co.,

and in reference to the establishment of the plant Mr. Smith is reported as saying that it will relieve the congestion at the Stuyvesant docks, where oil cake in the past has been packed by hand, and would result in drawing to New Orleans a large amount of freight which would probably go to Galveston. Mr. Smith is quoted as saying:

"Of course, the exporters are very much enthused over the proposition, as the plant would not only save them in the cost of sacking the cake, but would avoid the possibility of holding up a ship waiting for the material.

"The shipment of loose cake is, comparatively speaking, a new business, but is increasing daily, and it looks like the country mills will in the future keep on shipping their entire output for sacking at the terminals.

"Savannah, Ga., has also been operating a cake-sacking plant, and, of course, everyone interested is glad to see New Orleans get in line and not lose her share of export trade."

FOREIGN LETTERS

The MANUFACTURERS' RECORD is so widely read in foreign countries that we are in constant receipt of many letters from all parts of the world. Some of these letters indicate the disposition of foreigners to buy American goods, and are therefore of interest to our readers.

For Alimentary Products.

H. Looz & Co., 128 Rue de l'Instruction, Bruxelles, Midi, Belgium:

"We would be under obligations if you would put us in communication with American firms, also some in Canada, which are engaged in a special way in making various kinds of alimentary products. These interest us very much."

Supplies for Wineries.

Valadez y Perez Rojas, S. en C., Apartado 347, Guadalajara, Jalisco, Mexico:

"We permit ourselves to solicit your aid in bringing us in contact with the manufacturers of the following articles: Pine boxes for packing bottled wines, cappings for bottles and printed or lithographic labels for the same."

Alcohol Distilling Apparatus.

Sajiro Tateish, No. 43 Minamimachi, Tokio, Japan:

"I have looked in your magazine for makers of distilling apparatus having capacity of over 50 hektoliters, but could not find. You may suggest this to some makers to forward catalogues with price-list."

Crates and Furniture Machinery.

Jos. R. Rands, Pinar Del Rio, Cuba, wants addresses of manufacturers of machinery for crate and furniture factories.

Phosphate in Florida.

Mr. Albertus Vogt of Lakeland, Fla., in a letter to the MANUFACTURERS' RECORD, writes:

"Business here in every line is very much better than it has ever been in the history of the country. Hundreds of thousands of dollars are being invested each week in phosphate properties, and the development of that industry, although it has been 20 years since my first discovery of the rock here, has been enormous. There is not a ton of hard rock above ground of any kind that can be purchased today for any reasonable price, for the reason that every mine throughout the district has sold its entire output ahead and the world's demand for Florida phosphate rock is rapidly increasing every day. With the present high prices of naval stores and the large output and the fine crop of fruit and vegetables now being marketed from the peninsula of Florida there are good times ahead for this section."

MECHANICAL**Vertical Cross-Compound Side-Crank Corliss Engine.**

The Ball Engine Co. of Erie, Pa., builder of high-grade steam engines, celebrated its twenty-fifth anniversary last month. Experienced engineers and others aware of the progress made in steam engines know what success the Ball engine

The "Eureka" couplings are cast entirely from new first quality metals and are composed exclusively of electrolytic copper and high-grade tin, with only such admixture of spelter and lead as is necessary to best adapt the metal to coupling manufacture.

Even those used on the cheaper grades

of mill and linen hose are made entirely from the same high-grade new metals with a larger proportion of spelter, but the result is a strong and excellent metal for the purposes used.

"Eureka" couplings are made with threaded swivels, which consist of four annular threads cut male and female in

the inner and outer parts of swivel, respectively. These threads are standard 60 degrees and of full depth, and give at least four times the wearing surface that the ordinary flanged-lip swivel-joint gives, and their V shape prohibits any possibility of jamming, as the tendency of the joint is to free itself.

The threads, swivel, washer recess and waterway of the Eureka couplings are made at one setting of the part in a lathe, and are consequently perfectly true to each other, and the couplings therefore go together without the slightest trouble.

All swivel lugs are carefully milled to a uniform size, so that spanners may invariably fit.

The hose sockets are made of ample length to permit the use of an expansion ring of good width, and so avoid any liability of couplings blowing off, which is not unusual when short sockets and narrow rings are used.

"Eureka" sockets are made heavy enough, and of such tough metal that ordinary expansion will not expand the sockets. Rings are expanded by the use of an hydraulic coupling machine, in which the amount of expansion pressure is recorded by hydrostatic gauges. The pressure required to affix couplings so as to withstand high pressure is predetermined, and when couplings are being affixed that prescribed pressure is applied.

Although the Eureka Fire Hose Co. employs a special hydraulic expander as described, its couplings can be attached with an ordinary expander without the use of any special appliances.

Allis-Chalmers Blowing Engines.

An accompanying illustration presents a view of blowing engines built by the Allis-Chalmers Company of Milwaukee, Wis. The total normal output of air per minute from the air cylinders of these engines is approximately 2,000,000 cubic feet. The enormity of this volume can be better appreciated in the statement that it represents a tube of air having a cross-section of one foot and a length of about 380 miles. This volume is displaced every minute. The aggregate horse-power of the steam cylinders under normal conditions is over 50,000. The total weight of the engines furnished for a single company would aggregate 100,000,000 pounds, or 50,000 tons, and for their shipment a train of 2000 cars, 20 miles in length, would be required.



VERTICAL CROSS COMPOUND SIDE-CRANK CORLISS ENGINE, DIRECT CONNECTED. BUILT BY THE BALL ENGINE CO., ERIE, PA.

has attained. In 1881 Frank H. Ball first perfected his design, his purpose being to meet that demand which the increasing use of electricity was producing for a steam engine perfectly adapted to the new field of application. As new conditions and developments made it necessary the Ball engine was improved, and its qualities of efficiency and economy meet the requirements of modern practice. The Ball Engine Co. builds its single-valve types for from 50 to 700 horse-power, Corliss engines from 200 to 1200 horse-power, and its varied line of patterns enables it to offer engines suited to the various electrical generators now on the market. An accompanying illustration presents a view of a vertical cross-compound Corliss engine with improved valve motion built at the Ball works. The vertical engine offers certain advantages peculiar to itself in its requirement of small floor space where head room is available. This engine is built in size for belt from 400 to 1200 horse-power, or for direct-connected generators from 250 to 750-kilowatt capacity.

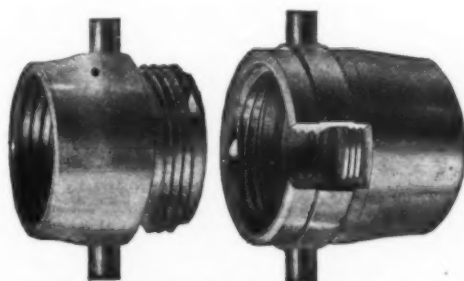
An anniversary booklet issued by the company outlines in brief its history and products.

Eureka Non-Cross Thread Couplings.

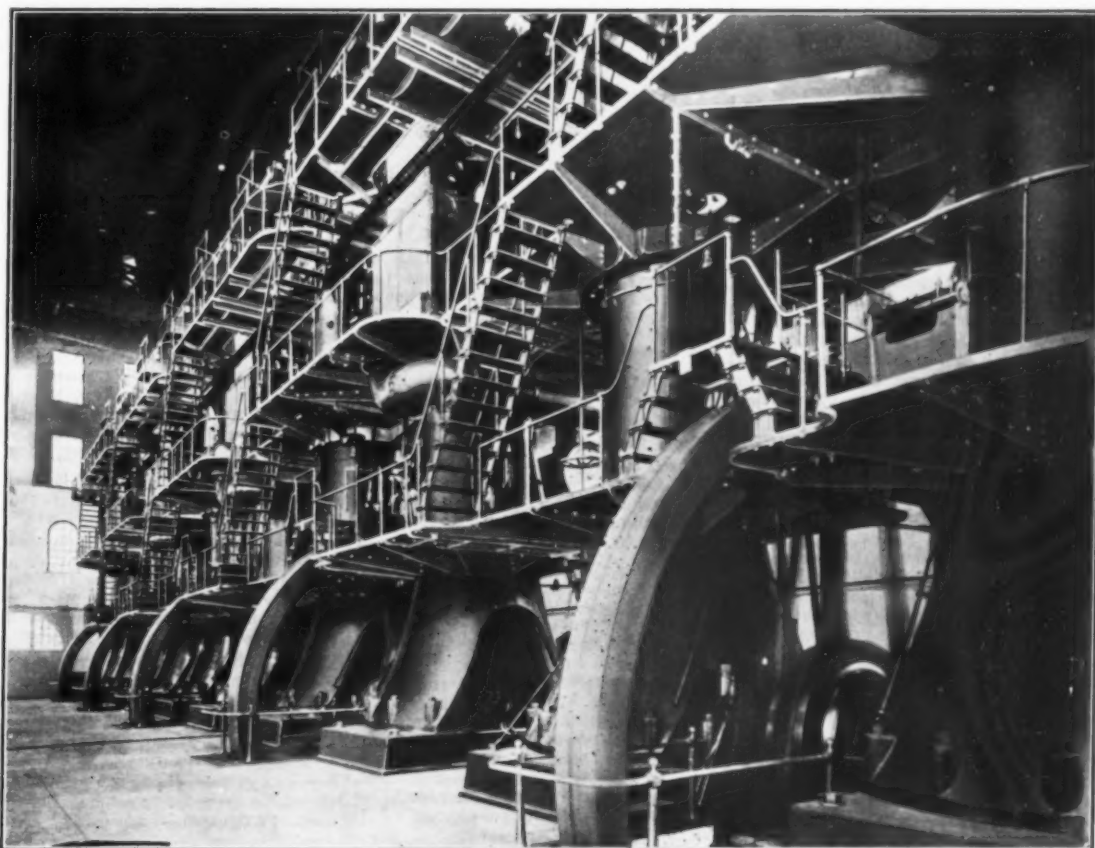
Important in connection with the fire hose employed for the protection of private dwellings, manufacturing establishments and public fire service are the couplings used.

The "Non-Cross" thread couplings manufactured by the Eureka Fire Hose Co., 13 Barclay street, New York, are made with unusual care and such improvements in details of construction and for facility in making connections as to make them in large demand.

All Eureka couplings are manufactured of bronze, and, unless otherwise desired, all the threads are of the non-cross variety; that is, they are cut off at the outer end to facilitate coupling and to prevent any possibility of the threads being crossed when the hose connection is being made.



"EUREKA" NON-CROSS THREAD COUPLINGS.



ALLIS-CHALMERS BLOWING ENGINES.

Construction Department

TO OUR READERS!

In order to understand and follow up properly the Construction Department items, please bear in mind the following statements:

EXPLANATORY.

The MANUFACTURERS' RECORD seeks to verify every item reported in its Construction Department by a full investigation and complete correspondence with everyone interested. But it is often impossible to do this before the item must be printed, or else lose its value as news. In such cases the statements are always made as "rumored" or "reported," and not as positive items of news. If our readers will note these points they will see the necessity of the discrimination, and they will avoid accepting as a certainty matters that we explicitly state are "reports" or "rumors" only. We are always glad to have our attention called to any errors that may occur.

* Means machinery, proposals or supplies are wanted, particulars of which will be found under head of "Machinery, Proposals and Supplies Wanted."

In correspondence relating to matters reported in this paper, it will be of advantage to all concerned if it is stated that the information was gained from the MANUFACTURERS' RECORD.

ADDRESS FULLY.

To insure prompt delivery of communications about items reported in these columns, the name of one or more incorporators of a newly incorporated enterprise should be shown on the letter addressed to that town, or to the town of the individual sought, as may be shown in the item, as sometimes a communication merely addressed in the corporate or official name of a newly established company or enterprise cannot be delivered by the postmaster. This will help to insure prompt delivery of your communication, although it is inevitable that some failures on the part of the postal authorities to deliver mail to new concerns will occur.

WRITE DIRECTLY.

It is suggested to advertisers and readers that in communicating with individuals and firms reported in these columns, a letter written specifically about the matter reported is likely to receive quicker and surer attention than a mere circular.

ALABAMA.

Anniston, Ala.—Lime Works.—Cheney Marble White Lime Co. has been incorporated with \$50,000 capital stock by J. A. Cheney, Franklin C. Cheney, John W. Cheney, A. M. Cheney and Cora Cheney.

Athens, Ala.—Furniture Factory.—The Cullen Company, H. D. Cullen, secretary, will establish furniture factory. It has about decided to locate in a two-story building 25x60 feet, already equipped with power, heat and lights, but has not purchased the necessary machinery.*

Attalla, Ala.—Land Improvement.—Glen Oak Realty Co. has been incorporated with \$5000 capital stock for the improvement of 60 acres of land near Attalla. D. P. Thompson is president, and A. J. Pickard, secretary-treasurer, both of Birmingham, Ala.; main office, Gadsden, Ala.

Bay Minette, Ala.—Townsite, etc.—It is reported that Hampton D. Ewing and associates of New York, N. Y., have purchased from the Hand Land Co. the townsite of Bay Minette, together with 6700 acres of land adjacent thereto, at \$90,000. Mr. Ewing and associates recently purchased from the same company 31,000 acres of land in Baldwin county at \$100,000, the Hand Lumber Co. retaining the right to the timber.

Bessemer, Ala.—Steel Plant.—Messrs. G. P. Martin, James Bowron and others have been appointed a committee to perfect arrangements for securing the establishment of the steel plant lately reported as contemplated.

Birmingham, Ala.—Cleaning and Dyeing.—French Dry Cleaning & Dyeing Co. has been incorporated with an authorized capital stock of \$3000. Louis Arnstein is president and general manager; Adolph Hirsch, vice-president, and August Hirsch, secretary-treasurer.

Birmingham, Ala.—Land Improvement.—Chartered: Belleview Realty Co. with \$5000 capital stock by C. A. Baker, G. D. Lane, Edgar Allen and W. S. Lane.

Birmingham, Ala.—Lumber Plant.—Fowler-Personett Lumber Co. has amended charter

changing name to the Case-Fowler Lumber Co. and increasing capital stock from \$30,000 to \$75,000.

Birmingham, Ala.—Iron-ore Lands.—It is understood that the Tennessee Coal, Iron & Railroad Co. (offices, Birmingham and 100 Broadway, New York) and the Republic Iron & Steel Co. (offices, Birmingham and in First National Bank Building, Chicago) have completed negotiations to jointly purchase an extensive tract of iron-ore lands near Birmingham from M. L. Potter of Brooklyn, N. Y. These lands are estimated to contain 70,000,000 tons of ore, and the price paid is reported as \$800,000. The companies are to utilize the ore in connection with their plans for future developments of their iron-mining and manufacturing enterprises in the Birmingham district. The meeting of the stockholders of the Tennessee Company, recently noted as called for October 16, has resulted in approval of the proposition to increase capital stock from \$20,000,000 to \$50,000,000, and it is believed this action will be followed later by a merger with the Republic Company.

Clayton, Ala.—Fertilizer Factory.—Clayton Fertilizer Co. has been incorporated with \$1000 authorized capital stock by George A. Johnston, W. H. Robertson and J. Z. Andrews.

Daideville, Ala.—Land Improvement.—Incorporated: Tallapoosa Loan & Realty Co. with \$10,000 capital stock by J. Percy Oliver, Toad H. Watkins and R. B. Ryalence.

Enfauia, Ala.—Hardware.—Chartered: Foy Hardware Co. with \$25,000 capital stock by J. E. Foy, J. P. Foy, S. W. Foy, W. H. Foy and S. A. Bulloch.

Gadsden, Ala.—Cotton Mill.—Rumored that Ragland Water Power Co., W. T. Brown and others interested, is planning to locate a cotton factory.

Gadsden, Ala.—Handle Factory.—O. G. Myrick and associates have purchased a site in North Gadsden on which to erect proposed handle factory. A building 40x80 feet will be erected and equipped for a daily capacity of 120 dozen handles; machinery has been ordered. E. C. Wallace will be general superintendent.

Gadsden, Ala.—Iron Furnace.—Quinn Furnace Co. is installing equipments for handling the supplies, including an aerial tramway, to convey wood from river barges to charcoal ovens and charcoal from ovens to stockhouse. The tramway will be operated on a heavy overhead cable and have a capacity of two cords of wood. H. F. Westcott, master mechanic of the company, designed the tramway. (The company was reported September 20 to blow in its 60-ton charcoal furnace.)

Hartford, Ala.—Patent Car Standard.—J. H. Nantz contemplates arranging to manufacture and market a patented flat-car standard and a patented tight and ventilated box-car door.

Opelika, Ala.—Cotton Mill.—Opelika Cotton Mills is reported to have awarded contract for 2500 spindles additional; present equipment 14,500 spindles, etc.

Phoenix, Ala.—Lumber Plant.—It is reported that T. U. Butts of Columbus, Ga., and associates will establish \$100,000 lumber plant, and may eventually build a showcase factory. About six and one-quarter acres of ground, it is stated, has been purchased.

Piedmont, Ala.—Cotton Mill.—Coosa Manufacturing Co., reported recently as to build a large addition, is merely extending its picker-room and erecting a machine shop.

Selma, Ala.—Candy Factory.—Contract has been let for rebuilding plant of the American Candy Manufacturing Co., recently burned; building owned by W. M. Gill.

Sheffield, Ala.—Water-power Electrical Plant.—Mussel Shoals Hydro-Electric Power Co. has been incorporated with an authorized capital stock of \$1,000,000 for the development of the water-powers of Mussel shoals on the Tennessee river by the construction of two dams across the river at the shoals, according to plans approved by the Government. It is stated that the use of water at each dam may be equivalent to 13,000 second feet flowing continuously. Frank S. Washburn of Nashville, Tenn., is president; J. W. Worthington of Sheffield, vice-president, and William H. Lindsay of Nashville, Tenn., secretary-treasurer.

Talladega, Ala.—Sulphur Ore.—Southern Sulphur Ore Co. has increased capital stock from \$50,000 to \$60,000.

ARKANSAS.

Bates, Ark.—Coal Mining and Briquette Factory.—The company recently organized with \$350,000 capital stock and L. E. Kenney, formerly of Seattle, Wash., president, and C. N. Gilbert, recently of Sallisaw, I. T., vice-president and general manager, has begun the development of coal properties recently purchased from the Seymour Coal Co., consisting of an open mine and 1019 acres of land underlaid with coal; daily capacity four cars. Arrangements will also be made for the manufacture of briquets, and it is proposed to install plant at the mines for a daily capacity of 200-tons at the start; general offices, Fort Smith, Ark.

Clarendon, Ark.—Water-works and Sewerage System.—Reported that the organization of companies to install water-works and sewerage systems is being considered; estimated cost \$75,000. Address The Mayor.

Dardanelle, Ark.—Coal Mines.—Cotton-Evans Coal Co., reported incorporated October 11 with \$300,000 capital stock, has options on 8000 acres of land five miles from Dardanelle, and has diamond drills now at work on the property. No definite plans have as yet been decided on. W. D. Cotton is secretary.

Eldorado, Ark.—Hardwood Plant.—Eldorado Hardwood & Manufacturing Co. has been incorporated with \$4000 capital stock by J. F. Miller, D. K. Hudson and T. J. Emerson.

Newport, Ark.—Hardwood Plant.—Fee-Crayton Hardwood Lumber Co. will be incorporated by Frank F. Fee and others of Newark, Ohio, to establish hardwood plant referred to October 11.

Turrell, Ark.—Sawmill.—Baker Lumber Co. will erect band and re-saw mill, replacing plant reported burned October 4. About \$40,000 will be invested. F. E. Gary is vice-president and manager.

Washington, Ark.—Cotton Gin.—J. F. Dugger is reported as to install cotton gin.

DISTRICT OF COLUMBIA.

Washington, D. C.—Bakery.—Holmes & Son, bakers, E and 1st streets N. W., will erect new bakery on F near 1st street N. W.; three stories, 34x108 feet; brick with stone trimmings; partial reinforced concrete construction; structural iron and steel; slag roof; sanitary plumbing; elevator. Boryer & Smith, 1304 C street N. W.; Fissell & Wagner, Home Life Building; Piper & Kenyon, 729 15th street N. W.; John L. Schaffert, 427 I street N. W.; Pumphrey & Gleeson; James A. Dowrick, 62 Florida avenue N. W.; Chas. Denham, 826 19th street N. W., and Brennan Construction Co., foot 31st street N. W., are estimating on construction; bids to be in October 29; A. B. Mullett & Co., architects, 1111 F street N. W.

FLORIDA.

Gainesville, Fla.—Ice Plant.—Fruit Growers' Ice Co., of which W. R. Thomas is president; C. A. Colclough, vice-president, and B. F. Hampton, secretary-treasurer, has secured a site 600x800 feet on the Seaboard Air Line and Gainesville & Gulf tracks on which to locate ice plant. It is proposed to equip plant with a 30-ton absorption machine of the latest improved design and labor-saving devices, including automatic and steam equipment for handling ice between storage-room and cars, enabling company to ice five or more refrigerator cars within the same time now required to ice one. The main storage-rooms will have a capacity of 2000 tons; capital stock \$50,000.

Gainesville, Fla.—Ice Plant.—Gainesville Gas & Electric Co. is reported to install 20-ton ice plant.

Jacksonville, Fla.—Land Improvement.—Chartered: Florida Development Corporation with \$200,000 capital stock; Dr. George H. Payne, South Framingham, Mass., president; Franklin T. Rose, 9 Harvard avenue, Boston, Mass., treasurer.

Miami, Fla.—Machine Shops.—Reported that the Florida East Coast Railway will erect machine shops. J. R. Parrott, St. Augustine, Fla., is general manager.

Milton, Fla.—Sawmill.—Robinson Point Lumber Co. will rebuild sawmill reported October 4 as destroyed by storm. About \$15,000 will be expended in building and equipment. P. Tomasello is manager.

Mulberry, Fla.—Ice Plant.—E. H. Dudley of Bartow, Fla., has purchased site on which to locate 10-ton ice factory.

Pensacola, Fla.—Steel Bridge.—Escambia County Commissioners have employed engineers to submit designs and specifications for a steel bridge to be built across Little bayou, replacing bridge damaged by recent storm. A temporary bridge is now being built to be used until new one is completed. Address County Clerk.

Starke, Fla.—Sawmill, etc.—A. A. Johns, reported October 13 to build sawmill, will erect building 30x121 feet and manufacture rough and dressed yellow-pine lumber, shingles, staves, etc. About \$2500 will be invested. C. R. Geiger is engineer in charge, and E. J. Ward, Brookier, Fla., architect.

St. Augustine, Fla.—Street Paving.—Contract will be let October 24 for paving several streets; John M. G. Carrera, City Clerk.*

Tampa, Fla.—Street Improvements.—R. L. Davis has contract at \$1.45 a square yard for paving East Lafayette street and Maryland avenue with vitrified brick and at 39 cents a linear foot for the curbing. H. H. Scarlett has contract at 23½ cents a cubic yard for the grading.

GEORGIA.

Albany, Ga.—Tunnel.—It is reported that the Albany & Northern Railway will construct a tunnel 400 feet long under Broad street. J. S. Crews is general manager.

Atlanta, Ga.—Printery, etc.—E. G. Warner, R. G. Warner, L. David and A. C. Ford have incorporated the George Stein Company with \$25,000 capital stock to engage in printing and bookbinding, manufacturing stationery, etc.

Columbus, Ga.—Syrup Refinery.—Georgia Cane Product Co. has been incorporated with \$25,000 capital stock and privilege of increasing to \$100,000 to take over and operate the plants of the Williams Manufacturing Co., located in Columbus, and the Georgia Syrup Co. at Bainbridge, Ga. It is proposed to remodel and increase the capacity of the Columbus plant. Johnson J. Williams will be president of the company; John S. Garner, vice-president, and John D. Blakely, secretary-treasurer; main office, Columbus.

Gainesville, Ga.—Manufacturing.—N. H. Williams, John C. Smith and W. C. Thomas have incorporated the Smith-Thomas Manufacturing Co. with \$25,000 capital stock.

Macon, Ga.—Naval Stores.—Joseph Benner, T. J. Carling and Walter A. Harris have incorporated the Benner Naval Stores Co. with \$25,000 capital stock.

Macon, Ga.—Railroad Repair Shops.—Central of Georgia Railway is reported as completing arrangements for the extension of shops. Nearly all the land, comprising 40 acres or more, it is stated, has been purchased. C. K. Lawrence, Savannah, Ga., is chief engineer.

Quitman, Ga.—Turpentine Lands.—John R. Ewing of Jacksonville, Fla., and Albert Prigden of Lake Park, Ga., it is reported, have purchased the turpentine privileges on 5000 acres of land in Brooks county at \$70,000.

Rising Fawn, Ga.—Iron Furnace, Coke Ovens and Mineral Lands.—A correspondent of the Manufacturers' Record reports that the Southern Steel Co. of Gadsden and Birmingham, Ala., has purchased the Georgia Coal & Iron Co. and its properties for about \$2,000,000. It is stated that the purchase includes a 200-ton iron furnace, 330 coke ovens, 51,000 acres of mineral lands in North Georgia, coal and iron mines, etc. These properties will be operated in connection with the Southern Steel Co.'s other plants, including the Lacey-Bueck Iron Co. and the Chattanooga Coal & Iron Co., which were acquired several months ago.

Savannah, Ga.—Naval Stores.—Old Town Naval Stores Co. has been incorporated by J. Ward Motte, William Wilder and others.

Savannah, Ga.—Buggy Factory.—Chartered: Henderson-Hull Company with \$75,000 capital stock by John J. Cummings, Lawrence McNeill, W. W. Williamson, J. J. Raters, William W. Mackall, John Flannery and associates to take over the stock of the buggy factory recently burned in Valdosta, Ga., removing same to Savannah and engaging in the manufacturing business. (Reference was made October 4 to the removal from Valdosta to Savannah of the plant of the Henderson-Cranford Buggy Co.)

KENTUCKY.

Barboursville, Ky.—Gas-pipe Line.—Reported that W. C. Kennedy of Bradford, Pa., has purchased the Mayhew gas well and

several thousand acres adjoining and will build a gas-pipe line to Barboursville, a distance of two miles.

Carter County, Ky.—Coal Mines.—M. E. Cassity, M. T. McDowney, B. W. Trimble of Mt. Sterling, Ky., and M. Gano Buckner of Harrodsburg, Ky., have incorporated the Straight Creek Coal Co. with \$25,000 capital stock.

Georgetown, Ky.—Publishing.—F. M. Thomson, J. W. Robinson and Harrison Smith have incorporated the Georgetown News Publishing Co. with \$10,000 capital stock.

Lexington, Ky.—Tobacco Stemming.—W. L. Petty of Rocky Mount, N. C., representing the United States Tobacco Co., is reported as investigating with a view to locating tobacco stemming in Lexington.

Louisville, Ky.—Sewerage System.—Commissioners of Sewerage of Louisville have submitted to Paul C. Barth, Mayor, the report of J. B. F. Breed, chief engineer, Louisville, Ky., and Consulting Engineers Samuel M. Gray of Providence, R. I., and Harrison P. Eddy of Worcester, Mass., setting out in detail comprehensive systems of sewerage for the city. In compliance with the requirements of the act creating the commission, the report of engineers contain descriptions of three systems, with estimates of the cost for each, the first system being recommended for adoption. This system provides for the construction of 60 miles of sewers at a total cost of \$4,000,000. For the ultimate construction of an intercepting sewer along the Ohio river and a purification and disposal plant; for a new southern outfall sewer about 5.1 miles long from Dry run, near Floyd and Lee streets, to Ohio river, cost \$1,710,700 draining approximately 4500 acres, or about 40 per cent. of area of city; a branch sewer to South Louisville, 2.7 miles long, costing \$165,000; construction of 11.9 miles of new sewers to relieve flooded section, cost \$553,900; trunk sewer to drain the northwestern district; drainage of lowland north of High avenue from 21st to 27th streets; construction of intercepting sewer along Beargrass creek to receive sewage and first flushings from either side of creek, cost \$303,700; improvement of channels of Beargrass creek and its branches, cost \$35,000; improvement of old bed of Beargrass creek between "Cutoff" and Jackson street; for combined system for district reached by Ferndale avenue, Castlewood avenue, etc.; separate system for Crescent Hill, Clifton, Cherokee Park, etc., and system of storm drains in this territory; for 14 miles of lateral sewers, cost \$413,700. Chief Engineer Breed has offices at 503 Equitable Building. (City was reported September 6 to vote in November on a \$4,000,000 bond issue to construct system.)

Louisville, Ky.—Dairy Machinery.—Adolphus Fay of Louisville, Alfred Herr Hite of Lyndon, Ky., and W. N. Arterburn of St. Mathews, Ky., have incorporated the Kentucky Deolator Manufacturing Co. to manufacture dairy machinery.

Louisville, Ky.—Land Improvement.—Glenview Land Co. has been incorporated with \$100,000 capital stock by A. P. Humphrey, G. R. Hunt, Jr., and R. C. Ballard.

Louisville, Ky.—Warehousing Company.—Citizens' Warehouse & Transfer Co. has been incorporated with \$5000 capital stock by Otis Pickrell, Mrs. Florida F. Muir and J. F. Ward.

Mayfield, Ky.—Tie and Lumber Company.—Pierce Tie & Lumber Co. has been incorporated with \$240,000 capital stock by L. W. Key, J. C. Speight of Mayfield, J. B. Pierce of Elizabethtown, Ky., and J. O. Pierce of Salem, Ky.

Newport, Ky.—Engine Works.—Fox Reversible Gasoline Engine Co., recently incorporated with \$100,000 capital stock, is a reorganization of a partnership of three years' standing. The Fox reversible marine engines are manufactured, as well as stationary and portable gasoline engines. A larger plant has been secured for increasing the facilities. Dr. E. E. Schmidt is president; M. B. Dean, vice-president; A. C. Perry, secretary, and A. G. Dean, treasurer.

Owensboro, Ky.—Hardware, etc.—Guenther Hardware & Mercantile Co. has been organized with \$16,000 capital stock by F. B. Guenther and J. Ed Guenther.

Paducah, Ky.—Soot Destroyer.—Incorporated: G. L. Gray Company with \$5000 capital stock by Jake Blederman, G. L. Gray and Adolph Well to manufacture a soot destroyer.

Tinsley, Ky.—Coal Mines.—Wildier Coal Co. has been incorporated with \$12,000 capital stock by P. E. Bennett, J. F. Wildier and L. M. Wildier.

Williamsburg, Ky.—Coal Mines.—Incorporated: New Diamond Jellico Coal Co., with \$25,000 capital stock, by E. F. Arthur, A. A. Arthur and E. S. Moss.

LOUISIANA.

Alexandria, La.—Street Paving.—Contract will be let November 6 for paving various streets; E. F. Hunter, City Clerk.*

Baton Rouge, La.—Spoke Factory.—J. W. Strong of Clinton, La., will arrange for resuming operations at the plant of the Baton Rouge Spoke Manufacturing Co. It is proposed to rebuild, enlarge and install the most improved machinery.

Catahoula Parish, La.—Lumber Plant.—Louisiana Central Lumber Co. of Clarks, La., has acquired the holdings of the Standard Lumber Co. in Catahoula parish, as mentioned October 11. The new purchase adjoins the present holdings of the Louisiana Central Lumber Co., and construction of new plant will begin as soon as plans and details are perfected. It is proposed to build a double-band mill, planing mill and make other improvements.

Crowley, La.—Public Improvements.—City will vote November 5 on the issuance of \$100,000 of bonds for constructing sewerage system, water-works, electric-light plant and school building, referred to October 11. I. W. Sylvester of Alexandria, La., has been engaged as consulting engineer for sewerage system, for which it is proposed to expend \$50,000. Shelby Taylor is Mayor.

Lake Charles, La.—Sawmill.—J. C. Stout will rebuild sawmill reported burned October 11; daily capacity, 50,000 feet pine lumber; William Henderson, engineer in charge, and C. East, architect.

Monroe, La.—Bridge Construction.—A. M. Blodgett has contract to reconstruct bridge across the Ouachita river near Monroe for the Vicksburg, Shreveport & Pacific Railway, E. L. Loftin, Vicksburg, Miss., supervisor bridges and buildings; structure to be of steel, 901 feet long and 16 and 18 feet wide in the clear, to have one draw span 235 feet long, two fixed-pin truss spans each 243 feet long and one fixed-pin truss span 120 feet long; cost \$195,750; piers to be of concrete and brick; two cylinder piers of old structure to be replaced at either end of structure by concrete abutments.

New Orleans, La.—Land Improvement.—Truck Farm Land Co., reported incorporated August 30 with \$375,000 capital stock, has under development 15,000 acres of land at Paradis, 27 miles from New Orleans. It is proposed to erect sawmills for cutting the cypress on the property, build 100 new houses to be placed on five-acre farm lots; also to drain about 2000 acres of the property in the immediate future. Milhard C. Baker is secretary.

New Orleans, La.—Brick Works.—Pelican Pressed Brick Co. has been organized with \$50,000 capital stock. Robert H. Hackney is president; John A. Wittig, vice-president, and Harrison G. Turner, secretary-treasurer.

New Orleans, La.—Lumber Plant.—Consumers' Lumber Manufacturing Co. has been incorporated with \$50,000 capital stock. R. H. Hackney is president and D. A. Hackney, secretary-treasurer.

New Orleans, La.—Cake-sacking Plant.—Reported that the French Oil Mill Machinery Co. of Piqua, Ohio, through its representatives, Chas. L. Smith & Co. of New Orleans, La., has contracted with the Illinois Central Railroad Co. for the erection of a cottonseed cake-sacking plant at Harahan; nominal capacity 1500 tons per day of 10 hours.

New Orleans, La.—Steam Laundry.—Louisiana Steam Laundry Co. has been incorporated with \$10,000 capital stock by Paul H. Maloney, Paul H. Merritt and D. H. Homes. (Referred to last week.)

New Orleans, La.—Manufacturing.—Incorporated: Hugo & Sullivan Manufacturing Co., Ltd., with \$10,000 capital stock by Charles N. Hugo, C. P. Sullivan and N. J. Thlery.

New Orleans, La.—Electric Ventilating.—Incorporated: Ilg Electric Ventilating Co. with \$50,000 capital stock. Sam W. Weis is president; Joseph E. F. Meyer, vice-president, and Robert A. Ilg, secretary-treasurer.

Opelousas, La.—Sugar Refinery.—The Central Sugar Refinery has permanently organized with James O. Chachere, president; Dr. O. P. Daly, vice-president, and J. G. Lawler, secretary.

MARYLAND.

Baltimore, Md.—Electrical Supplies.—The Electric Supply Co., 348 North Calvert street, has been incorporated with capital of \$5000 to deal in electrical supplies by George M. Upshur, Law Building; Franklin Upshur, Sherwood R. Murphy and John M. Neuberth, Jr.

Baltimore, Md.—Bakery.—Rice Bros. Company, baker, 312-320 North Gay street, will erect an addition to its bakery at 308-310 North Gay street; three stories and base-

ment, 28x110 feet; brick with stone trimmings; reinforced concrete construction; slag roof. C. L. Stockhausen, National Marine Bank Building, Gay and Water streets; Brady & Watters, 532 St. Paul street; McIver & Piel, Builders' Exchange Building, 2 East Lexington street; John Cowan, 106 West Madison street; J. H. Miller, 110 Dover street; James F. Farley, 207 North street, and John F. Kunkel & Co., 1421 North Highland avenue, are estimating on construction; bids to be in October 20; Owens & Sisco, architects, Continental Building, Baltimore and Calvert streets. Same architects are also preparing plans for a three-story reinforced concrete pie bakery 68x72 feet, to be erected in rear of present plant. Bids will be taken on this building in about two weeks.

Baltimore, Md.—Box Factory.—It is reported that the Crown Cork & Seal Co., bottle-stopper manufacturers, Guilford avenue and Oliver streets, will establish a box factory at its plant at Highlandtown (suburb of Baltimore).

Baltimore, Md.—Distillery.—The Sherwood Distilling Co., whiskey distiller, 604 Fidelity Building, Lexington and Charles streets, has called meeting of stockholders to ratify increase of capital stock from \$30,000 to \$700,000.

Baltimore, Md.—Wood-veneering Plant.—The Baltimore Veneer Panel Co., 8th street and Fairmount avenue, has increased its capital stock from \$50,000 to \$100,000.

Baltimore, Md.—Bottle-stopper Factory.—The complete list of contractors estimating on construction of six-story additional factory building for the Crown Cork & Seal Co., 1501-1523 Guilford avenue, are Wells Bros. Company, Union Trust Building, Charles and Fayette streets; D. W. & G. H. Thomas, Vickers Building, 225 East German street; Geo. Hunnecke & Sons, 305 St. Paul street; Henry Smith & Sons Company, 116 South Register street; Morrow Bros., 214 West Saratoga street; J. H. Miller, 110 Dover street; H. S. Rippel, 7 Clay street; Thomas P. Johns, 405 McCulloch street; John Hiltz & Son, 3 Clay street, and M. C. Davis, 5 Hopkins place; Charles M. Anderson, architect, 324 North Charles street. Full details recently reported; bids to be in October 17.

Baltimore, Md.—Glue Factory.—The Standard Glue Co., 509 West Pratt street, has been incorporated with capital stock of \$150,000 to manufacture glue, gelatin, mucilage, paste and varnish by Henry J. Bellman, Charles W. Hull, Frederick H. Gottlieb, David A. Breckenridge, Howard Cassard, Albert Hill-debrand and J. George Wertz. This company will succeed the Wachter Manufacturing Co., 509 West Pratt street.

Baltimore, Md.—Bakery.—The Maryland Biscuit Co., 516-532 South Charles street, has purchased additional lots adjoining its present plant and will erect six-story addition, 32x165 feet, on the site. Michael J. Fitzsimmons is general manager of the company.

Baltimore, Md.—Manufacturing.—The Patapasco General Manufacturing Co. has been incorporated with capital of \$100,000 to do general manufacturing by F. P. Steney, Augustus M. Denhard and W. W. Parker, all at 23 Central Savings Bank Building, 3 East Lexington street.

Baltimore, Md.—Buckle Factory.—The Marvel Buckle Co., Mieczyslaw Barabasz, 1634 Eastern avenue, has increased its capital stock from \$180,000 to \$225,000.

Baltimore, Md.—Brush Factory.—Rennous, Kleinle & Co., brush manufacturers, 418-556 Frederick avenue extended, have awarded contract to Frederick Decker & Son, 1209 East Biddle street, for the construction of factory building in rear of 848 Frederick avenue extended; three stories, 42.6x60.10 feet; brick; structural iron and steel; cost about \$9000; J. E. Laferty, architect, 11 East Pleasant street.

Cumberland, Md.—Rolling Mill.—Maryland Rail Co., H. H. Dickey, president, has leased and will operate the plate and bar mill of the Baltimore & Ohio Railroad Co., adjoining present plant; capacity 25,000 tons concrete bars and light rails.

Cumberland, Md.—Gasfitting Company.—The Gasfitting Company has been incorporated with \$10,000 capital stock by Carl C. Hetzel, G. Howard Hetzel, D. Lindley Sloan, James M. Sloan, Jr., and Thomas J. Mooney.

Frederick, Md.—Flour Mill.—J. W. Detrick of Philadelphia, Pa., has purchased at \$700 the site and remains of the Mountain City Mill, recently destroyed by fire. It is stated that the mill will be rebuilt.

Golden Hill, Md.—Telephone System.—Hoopers Island & Golden Hill Telephone Co. has been incorporated with \$2500 capital stock by Wm. F. Applegarth, Charles R. Mills, Henry I. Phillips, George W. Tyler, John M. Clayton, Alonzo Travers and associates.

Hagerstown, Md.—Spoke Factory, etc.—Hagerstown Spoke & Bending Co. has increased capital stock from \$100,000 to \$150,000 and will add to its present business the manufacture of wheels. It has consolidated with the J. C. Hollingsworth Wheel Co. of Wheel, Md., which plant will be removed to Hagerstown into a new building now under construction. (J. C. Hollingsworth Wheel Co. was reported June 21 as investigating with a view to removing plant.)

Oakland, Md.—Water-works.—D. E. Offutt has begun laying mains preparatory to the establishment of water-works system, for which franchise was previously reported applied for; supply to be obtained from Little Yough river.

MISSISSIPPI.

Biloxi, Miss.—Water-works.—City will issue \$25,000 additional bonds for the extension of water-works. O. G. Swetman is city clerk.

Brandon, Miss.—Water-works and Electric-light Plant.—Kirkpatrick & Johnson, Jackson, Miss., are reported to be making preliminary plans for proposed water-works and electric-light plant; cost \$25,000.

Brookhaven, Miss.—Ice Plant.—J. B. Nalty, president East Union Lumber & Manufacturing Co., is completing arrangements for the installation of 50-ton ice plant.

Brookhaven, Miss.—Water-works and Electric-light Plant.—City has let contract to the New Orleans (La.) Engineering Co. to install a new outfit of machinery in water and light plant, doubling the present capacity. (City was reported September 27 to issue \$15,000 of bonds for improving water-works and electric-light plant.)

Calhoun, Miss.—Chartered: Galmes-Mitchell Co., with \$30,000 capital stock, by H. T. Galmes, Otis Mitchell, R. D. Spencer and others.

Jackson, Miss.—Oil Wells.—Wallen Oil Co. has been incorporated with \$10,000 capital stock by A. K. Wallen, W. Q. Cole, T. J. O'Ferrall, A. H. Longino, A. D. Campbell, W. T. Pate of Jackson, R. H. Thompson, H. G. Thompson of Ridgeland, Miss., and others.

Lumberton, Miss.—Lumber Plant.—Hatten Bros. Lumber Co., reported incorporated October 4 under Wiggins, Miss., will erect sawmill 100x34 feet and dry-kiln 22x57 feet; daily capacity 25,000 feet of lumber. Equipment has been purchased. W. H. Hatten is president; N. P. Hatten, secretary-treasurer.

Meridian, Miss.—Cannery.—The stockholders of the proposed new canning factory have appointed S. A. Neville, J. M. T. Hamilton and C. L. Rushing a committee to select site and determine other details; capital stock \$75,000.

Vicksburg, Miss.—Water-works.—City has granted 45 year franchise to the Citizens' Water-Works Co. to construct and operate water-works.

Vicksburg, Miss.—Land Improvement.—E. C. Carroll, Harry K. Johnson, M. D. Landau and associates have incorporated the Mississippi Home Building Co. with \$25,000 capital stock.

Wiggins, Miss.—Dam Construction.—Finkbine Lumber Co. will build dams on small streams carrying a large volume of water at times, floods, etc., and wants to engage at once a hydraulic engineer who has had practical experience in building dams.

MISSOURI.

Carthage, Mo.—Zinc Concentrating.—Ford Mining & Milling Co., reported incorporated recently under Joplin, Mo., will concentrate zinc, having an hourly capacity of 15 tons. A building 60x65 feet will be erected; office, 232 East Macon street.

Columbia, Mo.—Shoe Factory.—Hamilton-Brown Shoe Co. of St. Louis, Mo., is reported to establish shoe factory.

Kansas City, Mo.—Amusement Company.—Chartered: Cascade Amusement Co., with \$50,000 capital stock, by M. O'Donnell, M. W. Elser and John Asel.

Kansas City, Mo.—Gas Machines.—L. R. Wells, William J. Lentell, Frank A. James and others have incorporated the Crown Gas Machine Co. with \$25,000 capital stock.

Kansas City, Mo.—Printery.—Lyon Printing Co., reported incorporated last week with \$3000 capital stock, has changed its name to the B. F. Cobb Printing Co. B. F. Cobb is president; J. A. Joseph, secretary, and C. L. Cobb, treasurer; office, 22-24 East 9th street.

Macon, Mo.—Creamery.—Chartered: Macon Creamery Co., with \$10,000 capital stock, by H. M. Rubey, Charles S. Tuley, John March and others.

St. Louis, Mo.—Land Improvement.—Chester Miller, Abe Pearl, B. A. Thompson, Geo. Sparks and others have incorporated the Pearl Realty & Construction Co. with \$6000 capital stock.

St. Louis, Mo.—Plumbing.—Chartered: Joseph F. Tumalty Plumbing Co., with \$5000 capital stock, by Joseph F. Tumalty, John B. Kennedy and Ely L. Willhoener.

St. Louis, Mo.—Land Improvement.—Blow Real Estate & Investment Co. has been incorporated with \$10,000 capital stock by Theodore Hemmelmann, Jr., Fred C. Hahn and Charles P. Brandle.

Moberly, Mo.—Water-works.—City will vote on the issuance of \$100,000 of bonds for constructing water-works. Address The Mayor.

St. Louis, Mo.—Tin and Sheet Metal Works. St. Louis Tin and Sheet Metal Working Co. has been incorporated with \$100,000 capital stock by C. F. Blanke, Louis T. Nolker, E. B. Plepho, R. H. Blanke and associates.

St. Louis, Mo.—Safe and Lock Works.—Brenner Safe & Lock Co. has been incorporated with \$100,000 capital stock by Henry C. Brenner, Charles J. Graf and Edward A. Sanguinet.

St. Louis, Mo.—Chemical Works.—Incorporated: Antigerma Chemical Co., with \$50,000 capital stock, by H. Bull, E. Rider and William Engelhoff.

St. Louis, Mo.—Advertising Novelties.—George R. Steinhäuser, Fred G. Udell and Wm. W. Hickey have incorporated the National Embossing Co. with \$100,000 capital stock.

St. Louis, Mo.—Automobile Manufacturing. Success Auto-Buggy Manufacturing Co. has been incorporated with \$10,000 capital stock by John C. Higdon, E. E. Higdon and Robert Horne to manufacture and sell automobiles and supplies.

St. Louis, Mo.—Automobiles, etc.—Hurck Motor & Cycle Co. has been incorporated with \$5000 capital stock by John Hurck, Alfred J. Carpenter, Maud Hurek and Mary H. Carpenter.

St. Louis, Mo.—Candy Factory.—Incorporated: Modern Candy Manufacturing Co., with \$10,000 capital stock, by Henry Foerster, J. William Seller and Charles Baltinger.

St. Louis, Mo.—Land Improvement.—Syndicate Development Co., it is reported, has purchased the Benton estate adjacent to the city, embracing about 792 acres of land, at \$350,000, and will develop as residence suburb, subdividing the tract into lots 50x135 feet.

St. Louis, Mo.—Plumbing.—John Gilmore Plumbing Co. has been incorporated with \$2000 capital stock by John Gilmore, George E. Bennett and Emma Gilmore.

Webb City, Mo.—Land Improvement.—Rochester Land & Leasing Co. has been incorporated with \$1,000,000 capital stock by Stanley R. Snook, Louisa M. Coyne, Thomas F. Coyne and others.

NORTH CAROLINA.

Burlington, N. C.—Furniture Factory.—The establishment of a furniture factory is being considered. W. E. Sharpe can probably give information.

Durham, N. C.—Locks, Safes, etc.—Combination Lock Co. has incorporated with an authorized capital stock of \$50,000 to manufacture locks, safes and hardware; incorporators, L. W. Grissom, J. W. Tatum, W. A. Fulford and W. C. Lindsay.

Fayetteville, N. C.—Ice Plant.—Fayetteville Ice & Manufacturing Co. has increased capital stock from \$25,000 to \$50,000.

Franklinville, N. C.—Cotton Mill.—Randolph Manufacturing Co. has begun erection of second story to balling-room and awarded contract for additional machinery, to include 8 spinning-frames of 208 spindles each, 54 looms, etc.

High Point, N. C.—Art Glass.—J. Elwood Cox, W. G. Bradshaw, Frank Wineski and others have incorporated the High Point Art Glass Co. with \$10,000 capital stock.

Mooresville, N. C.—Trousers Factory.—Eagle Clothing Manufacturing Co. will erect two-story building, 50x80 feet. About \$8000 will be expended. All equipment has been purchased.

Plumtree, N. C.—Dairy Farm.—Incorporated: Avery Farms, with an authorized capital stock of \$50,000, by W. W. Avery of Plumtree, A. C. Avery, Jr., and C. M. McDowell of Morganton, N. C.

Raleigh, N. C.—Road Improvements.—Wake county will vote November 6 on a \$300,000 bond issue for road improvements. L. H. Adams is chairman County Commissioners.

Statesville, N. C.—Land Improvement.—Statesville Realty & Investment Co. is being organized with \$10,000 capital stock. J. A. Parker of Dunn, N. C., will be secretary-treasurer.

Swain County, N. C.—Timber Development. It is reported that Ward & Hutton have purchased 35,000 acres of timber land in Swain county at \$245,000 and will arrange at once for cutting the timber and otherwise

developing same, building about 20 miles of standard-gauge railroad, etc. John C. Arbogast of Lake Charles, La.; B. M. Yeager of Marlinton, W. Va., and A. H. Winchester of West Virginia are said to be interested with Ward & Hutton.

Tarboro, N. C.—Land Improvement.—Incorporated: The Realty Company, with \$10,000 authorized capital stock, by R. B. Hyatt, H. A. Gilliam and Donnell Gilliam.

Winston-Salem, N. C.—Street Improvements.—City is considering the expenditure of \$200,000 for street improvements, and a committee has been appointed to make investigations, etc. Address The Mayor.

SOUTH CAROLINA.

Anderson, S. C.—Granite Works.—J. C. Dresser, operating granite works at Newton, Pa., is reported as investigating with a view to establishing plant.

Cayce, S. C.—Railroad Shops and Power-house.—Reported that the Seaboard Air Line Railway has purchased 100 acres of land on which to locate shops and electric power-house. W. L. Seddon, Portsmouth, Va., is chief engineer.

Chester, S. C.—Steam Laundry.—T. L. Eberhardt is completing arrangements for the installation of a steam laundry.

Columbia, S. C.—Kaolin Mining.—Saxe-Gotha Mining Co., reported incorporated October 11 with \$100,000 capital stock, will mine kaolin, having a daily capacity of 50 tons. Mills, sheds and tramways are now being built, and the plant when completed will represent an investment of \$15,000. It is expected to have plant in operation by November 15. W. S. Monteth is general manager; office, 1402 Main street.

Columbia, S. C.—Bottling Works.—Chartered: Columbia Bottling Co., with \$5000 capital stock, by Charles A. Glenn of Charlotte, N. C.; George G. Glenn and John A. Glenn of Gastonia, N. C.

Columbia, S. C.—Street Improvements.—City is reported as to expend about \$50,000 in street improvements. Address Chairman Keenan of the street committee.

Florence, S. C.—Telephone Exchange.—Southern Bell Telephone & Telegraph Co. (main office 78 South Pryor street, Atlanta, Ga.) has begun reconstructing its entire plant, as mentioned October 11. T. L. Ingram, general superintendent of construction, Atlanta, Ga., is engineer in charge.

Fort Mill, S. C.—Bleachery.—Reported that the Fort Mill Manufacturing Co. will build bleachery at a cost of \$12,000. It operates cotton mill.

TENNESSEE.

Bristol, Tenn.—Foundry and Machine Shop. Enterprise Foundry and Machine Works is being incorporated with \$30,000 capital stock to take over and operate the Enterprise Foundry. No new buildings will be erected. (Referred to August 9.)

Chattanooga, Tenn.—Paving and Sewerage. Southern Paving & Construction Co. has contract at \$1.65 a square yard for resurfacing with asphalt a portion of McCallie avenue; total cost \$11,781. Three bids were opened by Robert Hooke, City Engineer, for the construction of Eleventh-street sewer; West Construction Co., Bosler & Flynn and Guild & Co., and contract will be let to the lowest bidder.

Chattanooga, Tenn.—Gas Plant.—Chartered: Chattanooga Gas Co. with \$1,250,000 capital stock by George E. McGee, J. B. Sizor, H. A. Thornton, J. P. Hoskins and Robert Pritchard. It has acquired the local plant and property of the Chattanooga Gas Light Co., owned by J. A. Caldwell and others, and contemplates an expenditure of \$75,000 on improvements to plant and extension of mains.

Gleason, Tenn.—Pottery.—It is reported that C. D. White has discovered clay deposits near Gleason and will arrange for their development. The establishment of pottery is said to be under consideration.

Knoxville, Tenn.—Gas-plant Improvements. At the annual stockholders' meeting of the Knoxville Gas Co. plans for the improvement of the plant were considered. Henry L. Doherty of New York, N. Y., has been elected president; John E. Hood of Knoxville is secretary-treasurer.

Memphis, Tenn.—Tobacco Factory.—It is proposed to establish a tobacco factory, and Atkinson & Steptoe are interested. Permit has been secured for two-story frame building with metal composition roof; cost \$2000.

Paris, Tenn.—Coal Mines.—Reported that the Wichita (Kan.) Coal & Material Co. has purchased the Spot Cash coal mines at \$7500.

TEXAS.

Beaumont, Texas.—Steam Laundry.—Beaumont Steam Laundry, 206 Tevis street, has

let contract for \$3000 worth of additional machinery.

Beaumont, Texas.—Oil Wells.—Pruett Oil Co. has been incorporated with \$10,000 capital stock by W. H. Mitchell, G. C. Wood and L. Cox.

Big Spring, Texas.—Telephone System.—Western Telephone Co. has increased capital stock from \$50,000 to \$120,000.

Bryan, Texas.—Cotton Compress.—Bryan Press Co. is reported to rebuild cotton compress reported burned. J. W. Howell is president.

Colorado, Texas.—Cotton Company.—Western Belt Cotton Co. has been incorporated with \$5000 capital stock.

Dallas, Texas.—Mining and Manufacturing. Incorporated: Sutton, Steele & Steele, with \$50,000 capital stock, by H. M. Sutton, Walter L. Steele and E. G. Steele.

Dallas, Texas.—Chemical Works.—Southern Chemical Co. has been incorporated with \$10,000 capital stock by Ross E. Young, Charles E. Young and W. P. Donaldson.

Double Horn, Texas.—Irrigation Plant.—The Irrigation plant referred to September 27 is being installed by H. Schulte and not Joshua Klein as mentioned. Mr. Klein is merely in charge of the work in the absence of Mr. Schulte in Germany.

Floresville, Texas.—Water-works.—Town has voted affirmatively the proposed \$4000 water-works bond issue. Address Town Clerk.

Fort Worth, Texas.—Knitting Mill.—The Board of Trade is endeavoring to organize a company to build knitting mill.

Gertrudes, Texas.—Sawmill.—Graham-Todd Lumber Co., reported incorporated October 4 under Cody, Texas, with \$10,000 capital stock, will establish plant with a daily capacity of 60,000 feet and develop 100,000,000 feet of virgin pine timber. The mill will include a circular rig, shotgun feed, etc. Steam dry-kiln will also be provided. Equipment has been purchased. H. A. Melat of Batson, Texas, is president; H. L. Graham of Saratoga, Texas, vice-president and general manager, and W. L. Todd of Saratoga, Texas, secretary-treasurer. The Miller & Vidor Lumber Co. of Galveston, Texas, will control the product of the plant.

Houston, Texas.—Land Improvement.—Russell Brown Company has been incorporated with \$25,000 capital stock by Russell Brown, Bernard Brown and Russell H. Stapp.

Houston, Texas.—Car-wheel Foundry.—Dickson Car Wheel Co. has let contract for four buildings, including main foundry building, 24x135 feet; core-room, power plant and storage for supplies; buildings to be of slow-burning construction, pressed brick with tile roof. When completed the plant will have a daily capacity of 400 wheels. (A complete reference was made to this plant June 23.)

Houston, Texas.—Road Building.—W. S. Hipp has contract for building three and one-half miles of graveled road on the Crosby and Lynchburg road.

Houston, Texas.—Engraving and Electrotyping.—Texas Engraving & Electro Co. has been incorporated with \$10,000 capital stock by C. A. Patterson, Sam B. Kaiser, M. E. Foster, O. O. Ballard and W. H. Bailey to take over, enlarge and operate the plant of the Texas Engraving Co.

Jacksonville, Texas.—Ice and Electric-light Plant.—Jacksonville Ice & Electric Co. has been incorporated with \$75,000 capital stock by Charles A. Zilker, William Watkin and L. H. Vanderwerf.

Lampasas, Texas.—Bridge Construction.—Lampasas county has voted affirmatively the proposed \$10,000 bond issue for the construction of two iron bridges across the Lampasas river. Address County Clerk.

Lufkin, Texas.—Construction Company.—P. McCarthy, J. P. Starnes, N. D. Shands and Frank McCarthy have incorporated the McCarthy-Starnes Company with \$10,000 capital stock to construct railroads.

Marlin, Texas.—Cottonseed-oil Mill.—Co-operative Oil Mill Co. has been organized with \$50,000 capital stock.

McLannahan, Texas.—Cotton Gin.—Reported that the Farmers' Gin Co. will rebuild cotton gin reported burned at a loss of \$6000.

Miami, Texas.—Milling Company.—Miami Milling Co. has been incorporated with \$10,000 capital stock.

Newton, Texas.—Lumber Company.—Newton Lumber Co. has been incorporated with \$30,000 capital stock by D. A. Pagerman, F. W. Murphy and E. A. Bryan.

Richmond, Texas.—Steel Bridge.—Fort Bend county will vote November 6 on the \$4000 bond issue mentioned September 20, being one-half the cost of building a bridge connecting Fort Bend and Wharton counties.

Rule, Texas.—Toll Bridge.—Brazos River Bridge Co. has incorporated with \$10,000 cap-

ital stock to construct a toll bridge across Double Mountain fork of the Brazos river, three and one-half miles distant; incorporators, George S. Link, J. W. Kelly, J. L. Jones, W. L. George and Charles Welch.

San Antonio, Texas.—Irrigation Plant.—J. Gunter and D. W. Light have purchased 475 acres of land in the southeastern portion of the city and will install system to irrigate the land for farming purposes.

San Antonio, Texas.—Copper Mines.—Southwestern Copper Co. has been incorporated with \$10,000 capital stock by B. M. Hammond, J. J. Stevens, A. L. Wynne, William Hammond and others.

Sealy, Texas.—Mattress Factory.—A company has been organized with \$100,000 capital stock and W. T. Eldridge, president; F. J. Hillje, vice-president; J. T. Underwood, general manager, secretary-treasurer, to take over, enlarge and operate the plant of the Sealy Mattress Co., which has a daily capacity of 20 mattresses. It is also proposed to establish a plant in Houston, the combined daily capacity of both plants to be 100 mattresses daily.

Sherman, Texas.—Muslin Underwear Factory.—Southwest Lingerie Co., 707 East Houston street, reported incorporated last week, will manufacture muslin and gligham underwear, having a daily capacity of 10 dozen suits.

Teague, Texas.—Printery.—J. W. Davis, J. C. T. Hendrix, J. H. King, W. R. Boyd and W. T. Patton have incorporated the Teague Printing & Publishing Co.

Texas City, Texas.—Dry-dock.—Work will begin within 60 days on the dry-dock to be constructed by R. P. Clark and associates of Galveston; Texas, reference to which has been made at various times in this department, recently in issue of July 5. It is proposed to construct a dock 600 feet long, which will be divided by a gate, making in reality two docks, one 335 feet long and one 250 feet long. The midship gate will occupy a 25-foot space. The top width will be 90 feet and the smallest bottom width 68 feet. The depth will be 25 feet, with 21 feet over the sill at ordinary tide. A pumping station and power-house will be located a short distance from docks and contain two centrifugal pumps with a capacity of 60,000 feet per minute, which will be used for draining dock after vessel is in place. Included with the power plant will be an electric-light plant and a water system, in the construction of which 50 tons of pipe will be used. The water system is for fire protection. A machine shop and foundry will also be built and equipped with the most modern machinery, including a compressed-air plant with a capacity of 750 cubic feet of air. Estimated that about \$400,000 will be expended. A channel 25 feet deep and 1200 feet long will be dug to the mainland, and work on this will shortly begin.

Wichita Falls, Texas.—Electric-light and Power Plant.—Citizens' Electric Light & Power Co. has completed organization with J. D. Avis, president; T. J. Taylor, vice-president, and E. P. Walsh, secretary-treasurer.

VIRGINIA.

Blackstone, Va.—Woodworking Plant, Electric-light and Ice Plant.—Blackstone Lumber & Manufacturing Co. has been incorporated with \$50,000 capital stock to operate wood-working plant and 6½-ton ice plant. It also owns and operates electric-light and water plants, recently purchased from the Blackstone Manufacturing Co. All buildings have been erected except office building. The establishment of complete box factory is also being considered; daily capacity 25,000 feet of lumber. J. M. Harris is president; E. H. Ward, secretary-treasurer; L. D. Strauss, general manager of plants and architect in charge; J. W. Hoover, engineer in charge.*

Emporia, Va.—Telephone System.—Meherlin Valley Telephone Co. has been incorporated with \$5000 capital stock. H. L. Taylor is president.

Fredericksburg, Va.—Street Improvements. Contract will be let October 23 for improving Mary Washington avenue. Address E. T. D. Myers, Jr., Room 717 Mutual Building, Richmond, Va.*

Fredericksburg, Va.—Supply Company.—Fredericksburg Supply Co. has been incorporated with \$50,000 capital stock. Robert S. Dickson is president; W. L. Dempsey, vice-president, and A. E. Gregory, secretary-treasurer.

Interior, Va.—Lumber Company.—St. Clair Lumber Co. has been incorporated with \$25,000 capital stock, and P. F. St. Clair of Bane, Va., is president.

Lynchburg, Va.—Shoe Factory.—Plans have been completed and bids will be asked at once for building to be erected by the Lynchburg Shoe Co.; seven stories, 140x200 feet.

Manassas, Va.—Electric-light Plant.—J. C. M. Lucas Company, 1307 Continental Trust Building, Baltimore, Md., has contract at \$7557 for installation of electric-light plant. No satisfactory bid on water-works and street improvements being received, the committee in charge has been directed to re-advertise for bids on the work. O. E. Newman is chairman.

Norfolk, Va.—Wire-cloth and Wire-fence Works.—Norfolk Wire Cloth & Wire Fence Manufacturing Co. has been incorporated with \$150,000 capital stock. P. R. Howard is president; M. E. Forbes, vice-president.

Norfolk, Va.—Blank-book Manufacturing.—Incorporated: Henley Blank Book Manufacturing Co., with H. H. Henley, president; C. G. Kizer, vice-president, and C. Goffigan, secretary-treasurer; capital stock \$50,000.

Norfolk, Va.—Amusement Company.—Electric Amusement Co. has been incorporated with an authorized capital stock of \$25,000. W. W. Workman of Norfolk is president, and L. C. Johnson of Portsmouth, Va., secretary.

Oriskany, Va.—Ore Washer.—Alleghany Ore & Iron Co. has begun the construction of proposed ore washer at a point between Oriskany and Lignite. The building will be 55x150 feet and equipped with the most improved machinery. About \$75,000 will be expended. James P. Crist has charge of the construction work, and the plant is under the supervision of J. W. Stull, superintendent, and J. W. Burgess, assistant superintendent.

Palmyra, Va.—Slate Quarrying.—Old Dominion Slate & Cement Co., reported incorporated October 11 with \$100,000 capital stock, will arrange at once for quarrying roofing slate in Fluvanna and Buckingham counties, where it has leases. Nils P. Johnson of Youngstown, Ohio, is president; Thomas Sand, vice-president and manager; Louis Wester, secretary-treasurer, both of Anita, Pa.

Portsmouth, Va.—Crematory.—City is considering the establishment of crematory to cost about \$12,000 and have a capacity to dispose of between 15 and 20 tons of garbage daily. Address City Engineer.

Roanoke, Va.—Construction Company.—Incorporated: Millard-Quigg Construction Co., with \$100,000 capital stock. J. S. Sands is president.

Spring Grove, Va.—Oil Wells.—E. H. Williams and brother of Adamston, W. Va., have secured options on 12,000 acres of oil land in Surry county, and are reported to arrange at once for its development.

Staunton, Va.—Road Improvements.—Arrangements have been completed for macadamizing the road between Staunton and Churchville, referred to October 11. The work will consist of macadamizing about 10 miles of road at an approximate cost of \$25,000. C. T. Harris will superintend the work.

Stony Creek, Va.—Sawmill.—J. S. Newell of Freeman, Va., and New York, N. Y., has let contract to George L. Borum, Suffolk, Va., for the construction of sawmill; mill building to be 69x163 feet and to be equipped with six boilers of 100 horse-power each and engine of 470 horse-power capacity and other equipment for a daily capacity of 100,000 feet; cost \$75,000.

WEST VIRGINIA.

Beulah, W. Va.—Sawmills.—Randolph Lumber Co. has been incorporated with \$25,000 capital stock by H. E. Ast, F. W. Kirby of Elkins, W. Va.; J. W. Powell and J. J. Linderman of Canisto, N. Y., and Clare Willey of Alleghany, N. Y.

Elm Grove, W. Va.—Sewerage System.—Contract will be let at once for the construction of sewerage system mentioned July 19. J. E. Raub is engineer in charge.

Huntington, W. Va.—Railroad Shops.—Nothing definite has been decided on as to the erection of machine shops and other improvements reported October 11 to be made by the Chesapeake & Ohio Railroad. C. E. Doyle, Richmond, Va., is general manager.

Kingwood, W. Va.—Timber Land.—Krebs Lumber Co. of Morgantown, W. Va., has purchased the timber on 5900 acres of land in Preston county, which will probably be developed.

Milton, W. Va.—Machine Shop and Foundry.—T. L. Morris, E. E. Dubbing, R. T. Neel, R. E. Thornberry, all of Huntington, W. Va., have organized the Milton Machinery & Foundry Co., with \$5000 capital stock.

Morgantown, W. Va.—Sewerage and Street Improvements.—City is considering expending \$15,000 in constructing sewerage system and \$35,000 in street improvements. John L. Hatfield is Mayor.

Moundsville, W. Va.—Clay and Sand Mines, Gravel Lands, etc.—Mountain Slate, Stone &

Sand Co. has been incorporated with \$25,000 capital stock by George W. Blake, James A. Sigafosse, J. D. Burley, C. S. Kirk and Chas. C. Newman to acquire clay, sand and gravel lands, mine and ship stone, etc.

Panther, W. Va.—Coal Mines and Coke Ovens.—Sibley Coal & Coke Co. has been incorporated with \$100,000 capital stock by W. R. Thompson, T. J. Bryan, E. M. Watts and W. E. Bush.

Pine Grove, W. Va.—Oil-pipe Line.—At a meeting of the directors of the Pure Oil Co., 61 Manhattan Building, Philadelphia, Pa., it has been practically arranged to lay a six-inch pipe line from Pine Grove to Marcus Hook, near Philadelphia, Pa., a distance of 285 miles. It is estimated that the construction of line will cost \$1,000,000, and it is expected the work will be completed within a year.

Pruntytown, W. Va.—Natural-gas Mains.—John T. McGraw of Grafton, W. Va., has let contract for the laying of a four-inch main to convey natural gas from well near Pruntytown to the mining towns of Flemington, Simpson and Tryconell, W. Va.

Raleigh County, W. Va.—Coal Mines.—Beckwith & McGrath, Williamson Building, Cleveland, Ohio, representing a syndicate in which they are also interested, have purchased 30,000 acres of coal lands in Raleigh and Wyoming counties, and a company will be organized to develop the property.

Sutton, W. Va.—Industrial Improvements. The Development & Industrial Co. has been organized to encourage the establishment of manufacturing industries.

Wheeling, W. Va.—Coal Mines.—Utility Coal Co. has been incorporated with \$100,000 capital stock by S. M. Noyes, John L. Dickey, Fred J. Fox, Frank A. O'Brien and A. P. Beardsley.

Wheeling, W. Va.—Sewerage and Street Paving.—Martin Flanagan has contract for laying sewers and N. C. Hamilton & Son received contract to extend the 45th-street sewer as far as appropriation will reach at \$10 per linear foot. As only one bid was received for street paving, bids will be re-advertised by the Board of Public Works.

Williamson, W. Va.—Coal Mines.—Mingo Block Coal Co. has been organized by Harry Lawson of Williamson, V. L. Highland, Isham Keith, Sheridan R. Griffin, all of Clarksburg, W. Va.; Geo. M. Whitescarver of Grafton, W. Va.; Charles G. Dobbins of Wheeling, W. Va., and Meredith E. Lawson of Boston, Mass. It has purchased 7000 acres of coal land and will install five operations simultaneously, each with an average capacity of 1000 tons daily. Dr. Henry Mace Payne, civil and consulting engineer, has been elected general superintendent and chief engineer, and offices will be established in the White Building.

INDIAN TERRITORY.

Ada, I. T.—Water-works.—City has voted affirmatively the \$40,000 bond issue for the construction of water-works; referred to September 13. J. P. Wood is Mayor.

Nowata, I. T.—Water-works and Sewerage System.—Burns & McDonnell, Kansas City, Mo., it is reported, are preparing plans and specifications for proposed water-works and sewerage system.

Owasso, I. T.—Grain Elevator.—Caney Grain Co. and James Gilliland have begun the construction of 50,000-bushel grain elevator.

Tulsa, I. T.—Tank Farm.—C. H. Marcum, general manager of the Guffey Petroleum Co., Beaumont, Texas, has completed the purchase of a tank farm of 500 acres near Tulsa, and will commence at once the tankage of 3,000,000 barrels of oil from the Tulsa fields. Two pump stations for temporary use have been arranged for until the main pump station to pump south is installed. A loading rack has been established at Kiefer, near the Glenn pool, from which 5000 barrels will be shipped daily. It is stated that the company will manufacture its own steel to build its tankage. The tankage owned by the company at Beaumont, Texas, amounting to 3,000,000 barrels, will be shipped to Tulsa.

OKLAHOMA TERRITORY.

Cleo, O. T.—Manufacturing, etc.—Farmers' Union Manufacturing & Mercantile Co. has been incorporated with \$50,000 capital stock by R. E. L. Hunter, R. A. Murray, James Farthing, J. H. Hall, John Storey and associates.

Custer, O. T.—Flour and Meal Mill.—Custer Milling Co., reported incorporated October 11 with \$25,000 capital stock, will operate 200-barrel flour and 100-bushel meal mill; R. B. Miller, engineer in charge, and W. E. Gray, architect.

Elk City (P. O. Bush), O. T.—Cotton Gin and Grist Mill.—Chartered: New Star Gin

& Milling Co. with \$10,000 capital stock by George W. Kynard, Ella Kynard and others.

El Reno, O. T.—Publishing.—State Tribune Company has been incorporated with \$25,000 capital stock by R. B. Forrest, Frank Meyer, W. L. Baxter, William H. Riley and others.

El Reno, O. T.—Washing Machines.—One Minute Washer Co., reported incorporated October 11 with \$25,000 capital stock, will manufacture washing machines, having a daily capacity of 50 machines. Contract will be let in about a week for a two-story brick building 80x40 feet after plans by J. L. Vogel, F. P. Hoeker is secretary and manager.

Frederick, O. T.—Manufacturing.—Chartered: Frederick Manufacturing Co. with \$10,000 capital stock by C. B. McHugh, Mont A. Dean, D. C. Johnson and John H. Mounts.

Hitchcock, O. T.—Mill and Elevator.—Incorporated: Farmers' Mill & Elevator Co. with \$10,000 capital stock by Frank Cronkhite of Hitchcock, J. H. Siebert and David Schmidt of Okene, O. T., and D. B. Plumb of Emporia, Kan.

Oklahoma City, O. T.—Publishing.—Sturm Publishing Co. has been incorporated with \$100,000 capital stock by O. P. Sturm, M. Elma Sturm and L. M. Holcomb.

Oklahoma City, O. T.—Cement and Brick Works.—Incorporated: Oklahoma Cement & Brick Co., with \$100,000 capital stock, by Pierce Larkin, E. S. White and C. M. Brewer, all of Helena, O. T.

Oklahoma City, O. T.—Candy Factory.—Gibbons Candy Co. of Kansas City, Mo., it is reported, has leased building and will remove plant to Oklahoma City about November 1.

Oklahoma City, O. T.—Novelty Works.—Granger Novelty Manufacturing Co. has been incorporated with \$25,000 capital stock by C. C. Pottenger, H. F. Stone, J. S. Patrick and W. H. Granger.

Oklahoma City, O. T.—Natural-gas Mains, etc.—Chartered: Oklahoma Natural Gas Co., with \$3,000,000 capital stock, by D. T. Flynn, C. B. Ames of Oklahoma City, H. M. Byllesby, Arthur S. Huey and Henry M. Blackmer, all of Chicago, Ill., to pipe natural gas and oil from the oil fields of Indian Territory and Oklahoma into Oklahoma City, Guthrie, Shawnee, Enid and other important cities of the State. (Company was reported last week as applying for natural-gas franchise at Guthrie, O. T.)

Oklahoma City, O. T.—Powder Plant.—Sloux Powder Co. has been incorporated with \$150,000 capital stock by W. F. Harn, A. Harn of Oklahoma City, James B. Ellis, J. J. O'Rourke, Henry Wendall of Hawley, O. T., and others.

Payson, O. T.—Cotton Gin.—Quapaw Valley Ginning Co. has been incorporated with \$5000 capital stock by James Lewis, L. E. Clary, S. M. Maston, William Parnell, W. Sargeant, T. V. Love, W. I. Trammell, W. Cahill, Jesse Martin and associates.

Roosevelt, O. T.—Mining and Milling.—Chartered: New State Mining & Milling Co., with \$50,000 capital stock, by E. Johnson, T. E. Alday of Fort Worth, Texas; W. H. Riza of Nemo, Texas; A. F. Schwartz, J. B. Lenertz of Granite, O. T., and E. With of Oklahoma City, O. T.

Weatherford, O. T.—Electric-light and Power Plant.—Weatherford Electric-Light & Power Co. has been incorporated with \$10,000 capital stock by E. E. Balcomb, R. L. Cate and C. A. Galloway.

BURNED.

Bland, Texas.—W. A. Grimes' cotton gin; loss \$1000.

Brandy Station, Va.—W. J. Parr & Sons' warehouse, Robert McGuinn's blacksmith shop, L. J. Embrey's wheelwright shop.

Bryan, Texas.—Bryan Press Co.'s cotton compress; loss \$150,000.

Cordele, Ga.—W. B. Mathews' cotton gin.

Elberton, Ga.—St. Paul Morrison's cotton gin.

Fairfield, Mo.—W. W. Riddle's store and roller mill; loss \$12,000.

Friar Point, Miss.—Robinson Hotel; loss \$5000.

Greensboro, Ala.—Two sections of cotton warehouse owned by Blunt & Ward, containing 1200 bales of cotton; loss \$100,000.

Hickory Creek, Texas.—Hunt County Oil Co.'s cotton gin; loss \$5000.

Kendrick, O. T.—David Owen's cotton gin. McLannahan, Texas.—Farmers' Gin Co.'s cotton gin and grist mill; loss \$6000.

Paducah, Ky.—Paducah Veneer Co.'s plant damaged.

Redwater, Texas.—Redwater Lumber Co.'s sawmill; loss \$30,000.

Richmond, Va.—Adam Diacont's mattress factory; loss \$3500.

Solomons, Md.—Thomas Moore & Co.'s canning factory.

Tifton, Ga.—Four dry-kilns of H. H. Tift.

Trezevant, Tenn.—Ware & Goodwin's saw-mill.

Venus, Texas.—J. J. Sinter's cotton gin; loss about \$8000.

Waco, Texas.—Railroad yards, including coal chutes of the St. Louis Southwestern Railway, M. L. Lynch, Tyler, Texas, chief engineer, and the International & Great Northern Railroad, O. H. Crittenden, testing engineer, Palestine, Texas; loss \$75,000.

BUILDING NOTES.

* Means machinery, proposals or supplies are wanted, particulars of which will be found under head of "Machinery, Proposals and Supplies Wanted."

Alexandria, La.—Hotel.—Jos. E. Bentley is reported to erect a \$250,000 fireproof hotel.

Alexandria, Va.—Dwellings.—M. B. Harlow, Fairfax street, will erect four three-story brick and stone dwellings with heating systems and electric wiring and fixtures, to cost about \$20,000; Julius Wenig, architect, 655 New York avenue N. W., Washington, D. C.

Alexandria, Va.—Dwelling.—Frank Lyon, Roslyn, Va., is now taking bids on the construction of two-and-one-half-story brick and stucco dwelling 49x57 feet; tile roof; electric wiring and fixtures; sanitary plumbing and hot-air heating system will be installed; Spelden & Spelden, architects, 705 G street N. W., Washington, D. C.

Alva, O. T.—Science Hall and Library Building.—Board of Regents of the Territorial normal schools has adopted plans by Architect Layton of El Reno, O. T., for proposed science hall and library building to be erected at the Northwestern Normal School at a cost of \$45,000.

Ashland, Ky.—Hotel.—Ashland Hotel Co. has been incorporated by George O. Taylor, A. C. Lawrence and Prentice Ashton, all of Charleston, W. Va.

Asheville, N. C.—School Building and Crematory.—City will vote November 6 on the issuance of \$30,000 of bonds for erecting school building; also on bonds for the erection of a crematory. Address The Mayor.

Atlanta, Ga.—Library Building.—Gude & Walker have contract to erect Carnegie Library building at the Georgia School of Technology, referred to September 13. Morgan & Dillon, 707 Prudential Building, prepared the plans.

Attala, Ala.—Dwelling.—W. F. Sowers has purchased site on which to erect residence.

Augusta, Ga.—Apartment-house.—Jacob Phinizy is reported as arranging for the erection of apartment-house.

Ayden, N. C.—Store Building.—Cox & Stroud have contract for the G. W. Bryan store; brick; standard construction.*

Baltimore, Md.—Association Building.—Ancient Order of Hibernians, 416 West Fayette street, will erect a building in the central portion of the city to cost about \$50,000. Moyland & Welsh, contractors, Center and Calvert streets, will prepare the plans for the building and will probably construct it; C. J. Murphy, chairman, and John T. Doyle, secretary of building committee.

Baltimore, Md.—Dwelling.—Mrs. Edith E. Moore has awarded contract to Willard E. Harn, 2700 Huntington avenue, for the construction of dwelling at Roland Park; two and one-half stories; frame construction; electric wiring and fixtures; sanitary plumbing; heating system; cost about \$12,000; Beecher, Fris & Gregg, architects, 11 East Pleasant street.

Baltimore, Md.—Church.—T. George Carroll, architect, Continental Building, Baltimore and Calvert streets, is preparing plans and specifications for church building for St. Dominic's Church, to be erected on Harford road at Hamilton. The building will be constructed under the direction of the Dominican Fathers, with Rev. John R. Manley in charge. Structure will be of granite with limestone trimmings and will cost about \$16,000.

Baltimore, Md.—Dwellings.—Wm. J. Clendenin, 1417 Thames street, has commissioned George Clothier, Jr., Hoffman Building, 11 East Lexington street, to prepare plans and specifications for 26 two-story brick dwellings to be erected on Chapel street between Oliver and Federal streets, to cost about \$25,000.

Baltimore, Md.—Warehouses.—Wm. Depkin & Co., 436 Light street, will erect three warehouses at 500, 502 and 504 South Hanover street; four stories, 54x55 feet; brick with stone trimmings; structural iron and steel;

galvanized-iron skylights; metal ceilings; fire doors; electric wiring and fixtures; sanitary plumbing; hand elevators. Henry S. Rippel, 7 Clay street, is estimating on construction; bids to be in October 18.

Baltimore, Md.—Church.—The Baltimore City Missionary and Church Extension of the Methodist Episcopal Church, James E. Ingram, president, Bible House, 8-10 East Fayette street, has awarded contract to A. Knell, Jr., 213 St. Paul street, for the construction of church building at Oliver and McComas streets; one story, 48x88 feet; stone and stucco exterior; structural iron and steel; slate roof; electric wiring and fixtures; sanitary plumbing; heating system; Haskell & Barnes, architects, Wilson Building, 301 North Charles street.

Baltimore, Md.—Dwellings.—Walter L. Westphal, builder, 1700 North Bond street, will erect 38 two-story brick dwellings on Curley and Potomac streets, to cost about \$40,000.

Baltimore, Md.—Dwellings.—Arthur E. Bailey, 1222 James street, will erect 12 two-story brick dwellings on Glyndon avenue near Carey street to cost about \$10,000.

Baltimore, Md.—Dwellings.—Joseph Schamberger, builder, 2122 East Baltimore street, will erect a number of two-story brick dwellings on lot 120x100 feet at southwest corner Highland and Colgate avenues.

Baltimore, Md.—Dwellings.—German & Co., Law Building, 225 Courtland street, will erect six two-story brick dwellings on Mount near Presbury street to cost about \$12,000; Jacob F. Gerwig, architect, Hoffman Building, 11 East Lexington street.

Baltimore, Md.—Store Building.—Robert L. Gill, 215 St. Paul street, has purchased for client lot at 308 and 310 North Gay street, and store building will be erected on the site, which is 28x140 feet.

Baltimore, Md.—Warehouse.—Dr. Herbert Friedenwald, Philadelphia, Pa., will erect warehouse at 117 North Howard street; five stories and basement, 31x96 feet; brick with granite base and stone and terra-cotta trimmings; reinforced-concrete or ordinary construction; metal frames and sashes; slag roof; electric wiring and fixtures; sanitary plumbing; steam-heating system; two elevators. Charles L. Stockhausen, National Marine Bank Building, Gay and Water streets; J. H. Miller, 110 Dover street; Henry Smith & Sons Company, 116 South Register street; E. D. Preston, Gunther Building, St. Paul and Fayette streets; Morrow Bros., 214 West Saratoga street; Engineering-Contracting Co., 309 North Calvert street; George A. Blake, Law Building, 225 Courtland street, and M. C. Davis, 5 Hopkins place, are estimating on construction; bids to be in October 16; Simonson & Pletsch, architects, American Building, Baltimore and South streets.

Baltimore, Md.—Department Store.—Bernheimer Bros., 311-317 West Lexington street, have awarded contract to Edward D. Preston, Gunther Building, St. Paul and Fayette streets, for the construction of department store building at 302-308 West Fayette street and extending to Marlon street, where it will be connected to Lexington-street building by tunnel and bridges; six stories and basement, 70 feet frontage on Fayette street, 153 feet deep and 115 feet frontage on Marlon street; brick with stone and terra-cotta trimmings; steel-frame construction with reinforced-concrete floors; electric wiring and fixtures; sanitary plumbing; steam-heating system; elevators; cost about \$150,000; Charles E. Cassell & Son, architects, Law Building, 225 Courtland street.

Barboursville, Ky.—Administration Building and Dormitory.—Contract will be let at once for a three-story press-brick administration building 150 feet front, replacing structure recently burned, and dormitory at Union College. Brown & Davis, Foshick Building, Cincinnati, Ohio, were reported October 4 as preparing plans.

Beaumont, Texas.—Building.—Contract will be let about November 1 for building reported October 11 to be erected by the T. S. Reed Grocery Co. after plans by H. C. Mauer; building to be three stories, 80x126 feet; brick; mill construction; equipped with automatic sprinklers and other fire-protection apparatus; electric fixtures; electric elevator, 2500 pounds capacity, speed 60 feet per minute; cost \$25,000 to \$30,000.

Beaumont, Texas.—School Building.—General Bowen Baptist Association is arranging for the erection of \$50,000 industrial school. M. E. Robinson is chairman of board of directors.

Belleville, Texas.—Church.—Colleton & Mettke have contract to erect proposed edifice for the Catholic congregation; brick; cost \$50,000.

Berger, Mo.—Residence.—Otto Schmidt Berger has had plans prepared by Ewd. F.

Nolte, 620 Chestnut street, St. Louis, Mo., for proposed residence; two stories, 39x51 feet; brick and stone; hard plaster; gas and electric fixtures; marble and tile work; mantels, etc.; cost \$9000.

Big Stone Gap, Va.—School Buildings.—School Board of Richmond District, C. F. Blanton, clerk, will let contract for erecting and equipping school buildings for which \$15,000 of bonds were reported voted August 30.

Bowling Green, Ky.—Lodge Building.—Roemer Bros. have contract to erect lodge building for B. P. O. E. No. 320, after plans by Brinton B. Davis, Louisville, Ky.; press brick and stone; paper roof; steam heat; electric and gas fixtures; electric elevators; cost \$32,900.*

Bowling Green, Ky.—School Building.—City will vote in November on a \$30,000 bond issue for the purchase of site and the erection of school building. George T. Wilson is Mayor.

Brandon, Miss.—Courthouse Addition.—H. C. Hull of Canton, Miss., has contract at \$7111 for the erection of two-story addition to courthouse.

Brinkley, Ark.—Warehouse.—Gibb & Sanders, Little Rock, Ark., are preparing plans for a warehouse 50x100 feet, to be erected by the Gazola Grocery Co.

Bristol, Tenn.—Business Building.—W. M. Yearby has about completed arrangements for the erection of proposed three-story building with pressed-brick front on site recently purchased.

Brunswick, Ga.—Business Building.—R. E. Briesanick is arranging for the erection of three-story building with stone front.

Brunswick, Ga.—Hotel.—It is reported that a deal has been consummated for the purchase of the Oglethorpe Hotel, and about \$50,000 will be expended in improvements by the new owners. Luther Z. Rosser, attorney, is said to represent the purchasers.

Charlotte, N. C.—Store Building.—Hunter & Vaughan have contract to erect store building 70x70 feet for G. W. Norman.

Chattanooga, Tenn.—Car Barn.—A permit has been secured for the erection of car barn for the Chattanooga Railway Co., for which Joseph Trimby has general contract. Contract for the ironwork has been let to the Converse Bridge Co. R. H. Hunt is architect. (Referred to October 11.)

Columbia, S. C.—Courthouse.—The courthouse to be erected by Richland county, for which Shand & Lafaye were mentioned October 11 as preparing plans, will be a two-story structure of fireproof construction and cost approximately \$100,000.

Cordell, O. T.—Courthouse and Jail Building.—Washita county will vote November 6 on a \$50,000 bond issue to erect courthouse and jail. Address County Judge.

Dallas, Texas.—Association Building.—L. R. Wright has contract for the erection of proposed Y. M. C. A. building.

Danville, Va.—Theater.—The erection of a \$25,000 theater with a seating capacity of 1500 is being considered. Harrison Robertson, Jr., is chairman of committee.

Eagle Pass, Texas.—School Building.—An election will be held November 15 to vote on the issuance of \$30,000 of bonds for the erection of school building. Address Secretary School Trustees.

Elkins, W. Va.—Hotel.—The erection of a hotel is being considered, and Lew B. Dorcas, Box No. 3, Hendricks, W. Va., is interested.

El Paso, Texas.—Association Building.—Contract has been let for the erection of proposed Y. M. C. A. building. Address The Secretary.

El Paso, Texas.—Church and Parish Hall.—Hewitt & Jones have contract for the erection of proposed church and parish hall for the Episcopal congregation; cost \$50,000.

Fort Smith, Ark.—Office Building.—Sanguinet & Staats, Dallas, Texas, have completed plans for six-story office building to be erected by W. J. Echols at a cost of \$125,000.

Gadsden, Ala.—Business Building.—Rosenbaum Bros. have purchased site 25x125 feet on which to erect building.

Gadsden, Ala.—Opera-house.—C. S. Ward is having plans prepared for an opera-house, 75x125 feet, to have a seating capacity of 1200 and cost \$25,000 to \$35,000.

Gadsden, Ala.—Business Building.—Moragne & McCarver are completing arrangements for the erection of business building 50x100 feet.

Gadsden, Ala.—Hotel.—It is reported that about \$75,000 will be expended in improvements at the Printup Hotel, including the installation of a steam-heating plant, elevator and telephone system.

Gainesville, Fla.—Lodge Building.—Edwards & Walter, Columbia, S. C., have com-

pleted plans for improvements to be made to building recently purchased by the Gainesville Lodge No. 990, B. P. O. E., for lodge purposes.

Goree, Texas.—Cotton Warehouse.—Incorporated: Farmers' Union Warehouse Co., with \$2500 capital stock, by N. J. Kaufman, Rosa Bates, W. J. Lovern, W. P. Condron and others.

Greenville, S. C.—Hospital.—Plans have been completed by J. E. Sirrine, architect and engineer, for proposed \$15,000 city hospital.

Hamilton, Texas.—Cotton Warehouse.—Farmers' Union will erect a cotton warehouse of stone.

Hahira, Ga.—School Building.—Town will vote November 13 on the issuance of \$10,000 of bonds for the erection of school building. John T. Courson is Mayor.

Halesville, Ala.—Warehouse.—Incorporated: Farmers' Union Warehouse & Storage Co., with \$5000 capital stock.

Hamlin, Texas.—Bank Building.—W. T. Shannon of Temple, Texas, has purchased site on which to erect a two-story brick bank building.

Hartselle, Ala.—Cotton Warehouse.—Construction work will commence at once on the cotton warehouse to be erected by the Farmers' Union. Building will be of concrete and cost \$7000.

Hattiesburg, Miss.—Depots.—New Orleans & Northeastern Railroad is reported as to erect passenger and freight station; J. C. Haugh, resident engineer, New Orleans, La.

Henderson, Ky.—Association Building.—Harris & Shoppell, Evansville, Ind., are preparing plans for building mentioned August 30 to be erected by the Young Men's Christian Association.

Henderson, Ky.—Building.—George Deiker Company (carriage manufacturer) is erecting addition to plant to be equipped as salesroom; to be 150x50 feet; fireproof construction; cement concrete; floors to be cement finished; interior walls of white pressed brick; automatic-sprinkler apparatus to be extended from main building; steam heat.

Hot Springs, Ark.—School Building.—Architects are invited to submit plans and specifications to the School Board for a \$100,000 high-school building. Geo. B. Cook is superintendent.

Hot Springs, Va.—Jail Building.—Plans by Frank P. Milburn & Co., Home Life Building, Washington, D. C., have been adopted for proposed jail building for Bath county.

Houston, Texas.—Church.—Young, Reamer & McCoy have contract at \$35,000 for the erection of edifice for the Central Christian Church, referred to September 27. Sanguinet, Staats & Sueter prepared the plans, which call for a building 72x123 feet of pressed brick.

Iola, Texas.—Cotton Warehouse.—G. C. Reding, J. A. Neeley, W. H. Reding and M. R. Bell have incorporated the Farmers' Union Warehouse Co. with \$1300 capital stock.

Jackson, Miss.—Home Building.—Old Ladies' Home Association of Mississippi, Rev. Dr. W. H. Laprade, chairman, is completing arrangements for the erection of a two-story building to accommodate between 30 and 40 inmates and cost \$25,000. Architects will be asked to submit plans for a brick building, also for concrete-block building.

Key West, Fla.—Wharf Company.—Key West Wharf & Coal Co. has been incorporated with \$200,000 capital stock by Charles A. Murphy, William W. Shaw, Florence M. Ross, Edward H. Crandall, Robert B. Kilgore, all of 15 Exchange Place, Jersey City, N. J.

Little Rock, Ark.—Church.—Plans by J. E. Flanders, Dallas, Texas, have been adopted for proposed edifice for the Second Baptist Church; 75x125 feet; three stories, surmounted by a copper dome; brick with stone trimmings or stone construction; cost \$35,000. The structure will have a seating capacity of 1000, and have a roof garden to have a seating capacity of 500.

Lafayette, La.—School Buildings.—Dr. F. E. Girard, chairman of building committee, Lafayette High School, will receive bids until November 6 for the erection of school buildings according to plans and specifications prepared by Andrew J. Bryan, 708 Hennen Building, New Orleans, La., from whom plans and specifications can be secured on deposit of certified check for \$25; bids to be marked "proposals for school buildings at Lafayette, La." Certified check for \$300 must accompany each bid; usual rights reserved. For further information address the architect.

Lake City, Fla.—Church.—Construction work has begun on edifice for the Methodist congregation, I. C. Jenkins, pastor, for which Fielder & Hensley have contract.

Lake City, Fla.—School Building.—Fielder & Hensley have contract at \$17,440 for the erection of proposed high-school building.

Lexington, Mo.—Dwellings.—Charles Cheatham has prepared plans and has contract for two two-story residences 31x38 feet to be erected by F. L. Wallis at a cost of \$9000; brick and stone; hard plaster; modern plumbing; electric-light fixtures; plate glass; marble work; cabinet mantels, etc.

Louisville, Ky.—Clubhouse, etc.—Glenview Land Co. has been incorporated with \$100,000 capital stock by R. C. Ballard, A. P. Humphrey, G. R. Hunt, Jr., and others for the improvement of land reported October 4 as purchased on which to build clubhouse, polo grounds, golf course, tennis courts, swimming pools, etc.

Lumberton, N. C.—Depot.—It is reported that the Seaboard Air Line, W. L. Seddon, Portsmouth, Va., chief engineer, and the Raleigh & Charleston Railroad, J. M. Turner, general manager, Marion, S. C., will erect a \$6000 depot.

Lumpkin, Ga.—School Building.—Board of Education will receive bids until October 30 for the erection of school building in accordance with plans on file with B. L. Wood, secretary; also at the office of T. W. Smith & Co., architects, Columbus, Ga. Certified check for \$100, payable to the secretary, must accompany each bid. Usual rights reserved.

Lynchburg, Va.—Dwelling.—E. G. Frye is preparing plans for a residence to be erected in Rivermont by J. Gordon Payne.

Mayaville, Ky.—Depot.—Chesapeake & Ohio Railway Co. is reported as to erect passenger depot. C. E. Powell, Hinton, W. Va., is supervisor of bridges and buildings.

Memphis, Tenn.—Store Building.—E. H. Ekdahl has contract to erect one-story building for R. Brinkley Snowden; brick construction; cost \$5000.

Memphis, Tenn.—Dwelling.—J. H. Ekdahl has contract to erect residence for M. Baumgarten, mentioned last week; brick veneer; concrete foundation; slate roof; hot-water heating plant; gas and electric fixtures; cost \$7500.

Memphis, Tenn.—Building.—Memphis Brewing & Malting Co. has secured permit for the erection of proposed one-story brick building to cost \$20,000.

Memphis, Tenn.—Dwelling.—Ernest Parham will erect a two-story residence to cost \$8000; to have tile roof and be equipped with hot-water heating plant.

Meridian, Miss.—Scottish Rite Cathedral.—Scottish Rite Masons are considering the erection of a \$100,000 cathedral. Frederick Speed is chairman of the executive committee.

Mobile, Ala.—Scottish Rite Cathedral.—Chartered: Scottish Rite Cathedral Corporation, with \$24,000 capital stock, by Robert W. Sutherland, Henry L. Gaines, Thomas M. McMillan, Percy B. Dixon and Robert L. Douglass.

Mobile, Ala.—Hotel.—A. Danovich & Sons are completing arrangements for the erection of proposed eight-story hotel at a cost of \$250,000, adjoining present hotel.

Montgomery, Ala.—Hotel.—J. R. G. Ivey and Edward Noble are considering the erection of four-story hotel of concrete blocks on site recently purchased.

Monticello, Miss.—Store Building.—G. W. Magee and associates will erect four concrete and brick stores and will want a competent foreman to superintend the work.

Morton, Miss.—Cotton Warehouse.—Morton Warehouse Co. has been organized with \$4000 capital stock by T. B. Gaddis, J. C. Stokes, O. S. Moore, R. C. Cooper and W. A. Connors.

Moundsville, W. Va.—Church.—W. H. Batson has contract at \$42,000 for the erection of proposed edifice for the Simpson M. E. Church.

Newbern, N. C.—Hotel.—H. W. Simpson is preparing plans for a 60-room brick hotel to be erected by J. B. Blades. Hydraulic elevators will be installed.

Newbern, N. C.—Bank Building.—Newbern Banking & Trust Co., reported September 27 to erect building, wants to correspond with architects relative to plans and specifications for the erection of modern bank structure. Geo. B. Pendleton is cashier.

New Orleans, La.—Business Building.—Finlay, Dicks & Co. have purchased site, 53x160 feet, on which to erect building.

New Orleans, La.—Library Building.—John T. O'Leary submitted the lowest bid at \$194,900 for the erection of proposed public library building.

Newton, Miss.—Masonic Temple.—Newton Masonic Temple Association has been incorporated with \$50,000 capital stock by J. T. McRaven, E. E. Rowe, T. A. Baucum, C. H. Rew, W. I. Munn and others to erect a Masonic temple.

Norfolk, Va.—Apartment-house.—Hugh C. Davis has secured permit for the erection of proposed \$10,000 apartment-house.

Norfolk, Va.—School Building.—Bids will be received until October 25 by the School Board, Wm. M. Jones, chairman, for the erection of addition to the Cumberland Street school building. Plans and specifications can be procured at the office of Neff & Thompson, architects, sixth floor Atlantic Trust Building, on deposit of \$5. Certified check for \$200, payable to Wm. M. Jones, chairman, must accompany each bid; usual rights reserved.

Oklahoma City, O. T.—Business Building.—Frank B. Ziegler has secured permit for the erection of three-story brick building 75x120 feet, to cost \$18,000.

Paragould, Ark.—Masonic Temple.—Bids will be received until November 4 by B. H. Crowley, treasurer, for the erection of a three-story and basement brick and concrete Masonic temple; W. C. Hasty, president; J. L. Thompson, secretary.

Pensacola, Fla.—Pythian Temple.—Lamar & Fulgham are preparing plans for three-story brick building with stone trimmings to be erected by the local Pythians; the first floor to contain stores with plate-glass fronts.

Pensacola, Fla.—Dwelling.—Wm. W. Alfred has completed plans for Mrs. Langford's proposed two-story residence, 60x70 feet, to cost \$7000.

Pensacola, Fla.—Church.—Plans have been completed by Wm. W. Alfred for edifice to be erected by Big Zion Church; one story and basement, 50x75 feet; cost \$10,000.

Pine Bluff, Ark.—Store Building.—Fred Wilson has contract to erect brick building 25x154 feet for the Pine Bluff Mercantile Co.

Raleigh, N. C.—Dwelling.—Trustees of the Methodist Orphanage are arranging to build residence for superintendent John E. Cole.

Raleigh, N. C.—School Building.—M. A. Moser has contract to erect high-school building recently referred to. C. E. Hartge, West Martin street, prepared the plans, which call for a two-story building 89x133 feet, of red pressed brick with stone trimmings; gas and electric lights; heated and ventilated by warm air, fan system; cost \$16,000.

Rison, Ark.—Jail Building.—Bids will be received until October 22 by J. H. Bridges and B. F. Quinn, Commissioners, for furnishing material and building jail for Cleveland county, according to plans No. 1016 and specifications therefor prepared and furnished by the Southern Structural Steel Co., San Antonio, Texas, on file at the office of County Clerk. Certified check for \$500 must accompany each bid.

Roanoke, Va.—Hotel.—Max Goldberg of Radford, Va., has purchased site on which to erect hotel.

Roanoke, Va.—Shop Building.—W. M. Seay & Son of Lynchburg, Va., and Bluefield, W. Va., have contract to erect two-story building 53x139 feet of concrete and brick with composition and gravel roof for the Norfolk & Western Railway; ordinary shop construction; cost \$14,000.

Roslyn, Va.—Dwelling.—A. J. Porter, Ballston, Va., has contract to erect residence at Lyon, in Alexandria county, for Frank Lyon after plans by Spelden & Spelden, 705 G street N. W., Washington, D. C.; two stories; brick; hot-water or steam heating plant; electric fixtures; cost \$8000.

Sabinal, Texas.—School Building.—Town has voted affirmatively the proposed bond issue for the erection of school building. Address Town Clerk.

Salisbury, N. C.—Hospital.—Frank P. Milburn & Co., Home Life Building, Washington, D. C., have been engaged to prepare plans for proposed Snider Charity Hospital.

San Angelo, Texas.—Roundhouse.—Gulf, Colorado & Santa Fe Railway is reported as completing arrangements for the erection of 28-stall stone roundhouse. C. F. W. Felt, Galveston, Texas, is chief engineer.

Savoy, Texas.—Depot.—It is reported that the Texas & Pacific Railway will erect a passenger and freight depot. B. S. Waltham, Dallas, Texas, is chief engineer.

Scotland Neck, N. C.—Cotton Warehouse.—Cox & Stroud, Ayden, N. C., have contract for the erection of Farmers' Storage Warehouse; brick; standard construction.

Selma, Ala.—Lodge Building.—Chartered: Odd Fellows Building Co. with \$10,000 capital stock, by I. D. Denham, L. H. Allred, R. M. Nowell and others.

Sewell's Point, Va.—Union Station.—Phil E. Dunnivant & Co., Norfolk, Va., is lowest bidder at \$12,885 for both a shingle and plaster building for union station for the Intramural railway and the Norfolk & Atlantic Terminal Co. at the Jamestown Exposition.

Sewell's Point, Va.—Theater.—DeLong Amusement Corporation, reported incorporated October 11, will erect a theater on the exposition grounds 100x150 feet. About \$30,000 will be expended in building and equipment; L. S. DeLong, superintendent and architect, and O. S. Bullock, manager.

Shreveport, La.—College Building.—The executive committee of the Centenary College Commission has appointed Rev. W. D. Boggs, pastor First Christian Church, Shreveport, and Rev. C. B. Carter, presiding elder of the Arcadia district, a committee to select site for the location at Shreveport of Methodist College.

St. Louis, Mo.—Flats Building.—Mrs. Anna Knoke has purchased site, 42x115 feet, on which to erect modern flat building.

St. Louis, Mo.—Hotel.—Albert S. Block has purchased site on which it is stated a seven-story fireproof hotel will be erected.

St. Louis, Mo.—Parish Hall.—Jefferson Construction Co. has contract to erect parish hall for St. Leo's Building Co. after plans by Barnett, Haynes and Barnett; two stories, 72x126 feet; cost \$50,000. A gymnasium and swimming-pool will be installed. (Referred to September 13.)

St. Louis, Mo.—City Hospital.—The hospital reported September 13 to be erected by the city will be two stories, 160x50 feet; fireproof construction; electric fixtures; cost \$75,000; Barnett, Haynes & Barnett, architects; C. M. Talbert, engineer in charge.

St. Louis, Mo.—Theater.—Shubert Bros. of New York have secured options on three sites for erection of eight-story theater and hotel building to cost \$275,000; theater to have a seating capacity of 1700. W. Albert Swasey will draw the plans. Dan S. Fishell, resident manager, Garrick Theater, can probably give information.

Suffolk, Va.—Peanut Warehouse.—R. B. Darden has contract to erect two-story brick peanut warehouse 46x96 feet for the Suffolk Feed & Fuel Co.

Tampa, Fla.—Car Barn and Office Building.—Tampa & Sulphur Springs Traction Co. has let contract to E. C. Burke for the erection of proposed car barns and office building; to be 200x34 feet and cost \$8000. Contract for the brickwork has been awarded to McGucken Bros.

Trenton, Mo.—Dwelling.—Frank Hoffman will receive bids until November 6 for a two-story residence, 46x54 feet, of brick and stone, to cost \$15,000. Electric lights will be installed. S. P. Love prepared the plans.

Trenton, Mo.—Dwelling.—C. G. Knight has had plans prepared for a \$7000 residence; two stories, 38x56 feet; brick; hard plaster; modern plumbing; electric-light fixtures; plate glass; cabinet mantels.

Tulsa, I. T.—Amusement Buildings.—Tulsa Street Railway Co., C. H. Bosler, Dayton, Ohio, president and general manager, will establish amusement park in connection with street railway. Convention hall, rink, theater, dance hall and other amusements will be installed. Between \$15,000 and \$30,000 will be invested.

Wadesboro, N. C.—Bank and Office Building.—E. Coke Ingram has contract to erect bank and office building for the First National Bank, mentioned September 20; three stories, 28x39 feet, with granite front. Hook & Sawyer, Charlotte, N. C., prepared the plans.

Warm Springs, Va.—Courthouse.—Board of Supervisors of Bath county has commissioned Frank P. Milburn & Co., Home Life Building, Washington, D. C., to prepare plans and specifications for courthouse mentioned September 20.

Washington, D. C.—Hospital.—Henry Smith & Sons Company, 116 South Regester street, Baltimore, Md., were the lowest bidders at their bid of \$197,025, including mechanical equipment, and Pavarini & Wyne, 814 18th street N. W., Washington, D. C., were the lowest bidders at their bid of \$100,000, excluding mechanical equipment, for the construction of the Walter Reed Army General Hospital on Brightwood avenue; three stories and basement, 55x193 feet; brick with granite base and white stone trimmings; fireproof construction; electric wiring and fixtures; sanitary plumbing; steam-heating system; elevator; ventilating system; Marsh & Peter, architects, 525 13th street N. W.; Capt. A. W. Butts, Depot Quartermaster, in charge of construction of building.

Washington, D. C.—Dwelling.—Myer Newman, 911 I street N. W., has commissioned I. D. Porter, architect, 1421 F street N. W., to prepare plans for construction of three-story brick dwelling with hot-water heating system on M street, between North Capitol and 1st streets.

Washington, D. C.—Dwellings.—Harry Wardman, builder, 717 14th street N. W., will

erect nine two-story brick dwellings with hot-air heating systems at 3017-3033 11th street N. W., to cost about \$40,000; A. H. Beers, architect, 717 14th street N. W. Same architect is also preparing plans for 25 additional dwellings to be erected by Mr. Wardman.

Washington, D. C.—Dwellings.—Andrew W. Lukel, 1737 De Sales street N. W., has awarded contract to Reese F. Lukel, 123 Todd place N. W., for the construction of four two-story brick dwellings with hot-air heating systems at 30-41 R street N. E., to cost \$16,000.

Washington, D. C.—Dwelling.—Thomas A. Whittington, 28 Quincy street N. W., has awarded contract to J. H. Lane, 1725 3d street N. W., for the construction of two-story brick dwelling with hot-water heating system at 1430 Delafield place, to cost \$5000.

Washington, D. C.—Dwellings.—Peter Fersinger, builder, 1 N street N. W., will erect two two-story brick dwellings, with hot-water-heating systems, at 1897 and 1899 2d street N. W., to cost \$9000; Julius Wenig, architect, 655 New York avenue N. W.

Washington, D. C.—Dwelling.—Joseph J. Moebis, builder, 1416 F street N. W., will erect three-story brick dwelling at 1530 Church street N. W., to cost \$5000.

Washington, D. C.—Warehouse.—John Miller, 1301 G street N. W., has purchased lot fronting 200 feet on 4th street N. W., Eckington, and it is reported will later erect large warehouse on the site.

Washington, D. C.—School.—The Reform School for Girls of the District of Columbia, Chapin Brown, president board of trustees, Conduit road N. W., will receive bids until October 25 for erection and completion of two-story brick school building. Plans and specifications may be obtained from Wyeth & Cresson, architects, 1517 H street N. W.

Washington, D. C.—Hospital.—Frank Miles Day & Bro., architects, 925 Chestnut street, Philadelphia, Pa., have submitted tentative sketches to the Commissioners of the District of Columbia for tuberculosis hospital for which Congress appropriated \$100,000.

Washington, D. C.—Church Home.—The Epiphany Church Home Association, 1319 H street N. W., has purchased for \$16,000 lot on M street between 17th and Connecticut avenue N. W., and will erect church home on the site, which is 60x133 feet.

Washington, D. C.—Outbuilding.—Sealed proposals will be received at Depot Quartermaster's office, Capt. H. L. Pettus, Quartermaster, U. S. A., Washington, D. C., until November 15, for constructing brick outbuilding at Battle Creek, D. C., National Cemetery, according to plans and specifications which may be obtained upon application.

Washington, D. C.—Hotel.—The Randolph Hotel Co., 1328 New York avenue, will be incorporated with Christian Heinrich, R. T. Warwick, C. E. Wood, Franklin V. Killian, John F. Wilkins, Frank P. Burke and James Lansburgh as trustees to build and operate hotel to be erected at northeast corner Pennsylvania avenue and 14th street N. W. The structure will be 12 stories in height and have 350 rooms, and will cost about \$400,000. Seven architects are now preparing competitive plans for the building, to be submitted November 5; this building previously reported.

Wilmington, N. C.—Warehouse.—Universal Oil & Fertilizer Co. is building a one-story seed warehouse 38x165 feet.

RAILROAD CONSTRUCTION.

Railways.

Albany, Ga.—Reported that the Albany & Northern Railroad will immediately prepare to build its extension through Baker, Miller and Decatur counties. J. S. Crews is vice-president and general manager at Albany.

Anderson, S. C.—C. G. Sayre, chief engineer of the Oconee County Railway Co., is reported as saying that construction contracts will probably be let next spring for the proposed line from Westminster, S. C., via Oakway Cross Roads to Townville, S. C., 15 miles. Survey is made and right of way obtained. J. J. Fretwell and others are interested, Mr. Fretwell being president.

Baldwin, Ga.—The Atlanta, Buford & Gainesville Electric Railway Co. is reported to have made a survey for its proposed line from Atlanta to Norcross and Gainesville, Ga., with a branch from Norcross to Cumming, 80 miles. E. Philbrick is chief engineer at Baldwin.

Baltimore, Md.—The Washington, Baltimore & Annapolis Electric Railway Co. will hold a stockholders' meeting at Annapolis, Md., on November 2 to vote on the proposed addition of \$1,250,000 to the present capital stock of \$4,000,000. This increase, it is said,

represents the financing of the Baltimore Terminal Co., the entering line of the electric railway. George T. Bishop is president at the Maryland Trust Building, Baltimore.

Beaumont, Texas.—The Texas & New Orleans Railroad Co. (Southern Pacific system) will, it is reported, enlarge its yard facilities at Beaumont, including the building of new yards. A. V. Kellogg is engineer maintenance of way at Houston, Texas.

Charleston, S. C.—Henry Bulst, attorney, has applied to the City Council on behalf of the Seaboard Air Line for right of way in Charleston. W. L. Seddon is chief engineer at Portsmouth, Va. Reported that an extension will be built from Lugoff, near Camden, on the Seaboard Air Line, direct to Charleston, 105 miles.

Cheyenne, O. T.—The Oklahoma, Texas & Western Railroad Co. has been chartered to build a line 80 miles long from Cheyenne to Clinton, Thomas and Elk City; headquarters at Cheyenne. The directors are L. L. Collins, Milo Burlingame, A. C. Miller, W. E. Bonner, L. W. Pate and R. V. Converse of Cheyenne and D. D. Fitzgerald of 80 Wall street, New York.

Clinton, O. T.—The Kansas City, Mexico & Orient Railway has completed 30 miles of new track, reaching to Clinton via Foley, Custer City and Arapahoe.

Crowley, La.—Grading has begun at Crowley to continue the construction of the Colorado Southern, New Orleans & Pacific Railway, which is being built between DeQuincy and Baton Rouge. The general contractor, the Quigley-Hammond-Kenefick Construction Co. of Beaumont, has established an office in Crowley with J. W. Hammond in charge.

Dallas, Texas.—M. M. Phinney, general manager for the Stone & Webster interests, is quoted as saying that engineers will shortly begin a survey for the proposed electric railway to Waxahachie, Texas.

Damascus, Va.—The Laurel Railway Co. of Damascus has been chartered to build a line from Damascus to the State line, Tennessee boundary, about five miles. A. A. Mock is president and treasurer; F. G. Clements, vice-president; S. L. Mock, B. W. Mock, Charles A. Baker, R. M. Page, J. I. Hurt, secretary, all of Damascus; capital \$25,000.

Demopolis, Ala.—Reported that Col. F. M. Abbott of Selma and others have decided to build a railroad from Demopolis to Linden, Ala., 16 miles. Colonel Abbott is president of the Selma Street & Suburban Railway.

Eastland, Tenn.—The Nashville, Chattanooga & St. Louis Railway is reported to be surveying for an extension from Eastland to Dunlap, Tenn. Hunter McDonald is chief engineer at Nashville.

Elkhorn City, Ky.—Mr. W. A. Doane, principal assistant engineer of the Meadows Company, builders and contractors, writes from Bristol, Tenn., to the Manufacturers' Record that the Elkhorn Southern Railway Co. proposes to build a line about 45 miles long from Elkhorn southward to Dante, Va., connecting with the Chesapeake & Ohio Railway and with the Lick Creek & Lake Erie Railway. Location is in progress; president, George L. Carter; vice-president and general manager, M. J. Caples, Bristol, Tenn.

Floydada, Texas.—Reported that plans are under way to build a railroad from Floydada to a point in New Mexico. Col. W. M. Massie of Floydada and others are interested.

Fullerton, Ky.—The Kentucky North & South Railroad Co. of Kenton county has been incorporated with \$250,000 capital to build a line from Fullerton in Greenup county, Kentucky, to Bristol, Tenn., about 200 miles. The line will run through Carter, Elliott, Lawrence, Morgan, Johnson, Magoffin, Floyd, Knott and Letcher counties in Kentucky, and Wise, Scott, Russell and Washington counties in Virginia; headquarters at Covington, Ky. The incorporators are T. J. Fitzpatrick, John C. Homer, R. J. Miller and Louis E. Miles of Springfield, Ohio; Amon T. Noe of Pittsburgh, Pa.; James P. Purdum of Portsmouth, Ohio, and Charles H. Hoglen, Dayton, Ohio.

Gadsden, Ala.—The Louisville & Nashville Railroad is receiving bids for the construction of a one-mile spur to the Consolidated Furnace and the Coosa Pipe Plant. W. A. Courtenay is chief engineer at Louisville, Ky.

Greenville, S. C.—The Greenville & Knoxville Railway Co. is reported to have graded about 20 miles of line from Greenville to Marietta and is preparing to lay tracks. W. H. Patterson of Atlanta, Ga., is president, and A. P. Roberts of Greenville is superintendent of construction.

Hickman, Ky.—M. G. Gresham of the Sikeston & Southeastern Missouri Railroad Co. is reported as saying that the proposed line

from Sikeston, Mo., to Hickman, Ky., is assured, an incline and transfer to be operated across the river.

Houston, Texas.—The Houston Belt & Terminal Co. meeting, which was to have acted on the proposed issue of \$5,000,000 of bonds for construction, has adjourned until November 7 to await the return of President Sam Lazarus and Frank Andrews, general attorney, the former being in the North. Construction is to begin January 1.

Jackson, Miss.—The Jackson, Pascagoula & Gulf Railroad Co. has applied for a charter to build a line from Jackson to the port of Pascagoula. The incorporators are F. A. Lewis of Scranton, Miss.; Stone Deavours of Laurel, Miss.; A. C. Jones of Jackson, Miss., and others.

Kansas City, Mo.—The Missouri River & Gulf Railroad, lately incorporated, will, it is reported, shortly begin construction on its proposed line from Kansas City to Denison, Texas, with a branch from Lehigh, I. T., to Shreveport, La., and another branch to Joplin, Mo. A. L. Berger, attorney for the Union Pacific Railroad, and E. F. Swinney, a director in the Chicago & Alton Railway, are among the directors. This is regarded as a proposition of the Harriman interests.

Livingston, Tenn.—Mr. E. C. Knight, general counsel, secretary and treasurer of the Overton County Railroad, writes the Manufacturers' Record that they expect to begin construction this fall on the extension from Livingston to Burnside, Ky., 7½ miles. The plan has been financed, survey made and right of way obtained. Connection with the Southern Railway on the west and with the Queen & Crescent Route on the east will be made.

Madisonville, La.—Charles H. Honeton and William E. Honeton of the Honeton Lumber Co. propose to extend their railroad six miles to Hammond, La.

Muskogee, I. T.—The Indian Central Railway has been chartered to build a line from Ponca City, O. T., to connect with the Iron Mountain road in the Cherokee Nation, and thence to Paris, Texas, with a branch from the Red river to Oklahoma City; total length of line 460 miles. The incorporators are Chief Pleasant Porter of Muskogee, E. T. Hathaway, O. D. Halsell, Ed Overholser and Wm. C. Reeves of Oklahoma City.

Newberry, S. C.—The South Carolina Public Service Corporation of Brooklyn, N. Y., is reported to be making inquiries concerning its plans to build trolley lines connecting Newberry with other towns. R. C. Van Ettin of Brooklyn, N. Y., and others are interested. The line, it is said, will start from Augusta, Ga., and will connect Charleston and Columbia, S. C., and Charlotte, N. C.

New Iberia, La.—The Central Railway of Louisiana has made a new survey from New Iberia to Crowley, La., 33 miles, via Milton and Hunter's canal. Construction is expected to be resumed within two weeks. C. C. Henshaw of New Iberia is president.

New Martinsville, W. Va.—It is proposed to build a railroad from New Martinsville to Middlebourne, W. Va. Among those interested are John S. Shore, J. G. Mayfield, R. A. Martin, O. W. O. Hardman and K. C. Moore, all of Middlebourne.

Oklahoma City, O. T.—Reported that the Frisco system contemplates building a line northwest from Oklahoma City via Eagle City to connect with the Colorado & Southern Railroad in the Panhandle of Texas. J. F. Hinkley is chief engineer at St. Louis, Mo.

Pensacola, Fla.—The Southern Construction Co. has begun rebuilding the tracks of the Louisville & Nashville Railroad from Pensacola to Escambia, and will raise the track about five feet.

Roanoke, Va.—The stockholders of the Norfolk & Western Railroad Co. have approved the proposed issue of \$34,000,000 of convertible bonds and equal amount of common stock, the proceeds of the bonds to be used for improvements. C. S. Churchill is chief engineer at Roanoke.

Rock Hill, S. C.—The South & Western Railway is reported to be surveying near Rock Hill for an extension from Shelby, N. C., to Spencer, on the Seaboard Air Line, near Rock Hill. M. J. Caples is general manager at Bristol, Tenn.

Roscoe, Texas.—Mr. F. W. James, Abilene, Texas, president of the Roscoe, Snider & Pacific Railway Co., informs the Manufacturers' Record that the proposed line will be about 200 miles long from Roscoe via Snider, Texas, to the New Mexico boundary. Permanent location for 30 miles is being made. Marlin Duval is chief engineer at Roscoe, Texas.

St. Louis, Mo.—The St. Louis, Lakewood & Grant Park Railway Co. is building an electric line three and one-half miles long

through the Lakewood subdivision from St. Louis to Grant Park.

Savannah, Ga.—The Savannah, Statesboro & Western Railroad Co. has been granted a charter to build its proposed line from Statesboro, Ga., the terminus of the Savannah & Statesboro Railroad, to Atlanta, 295 miles, making a line 258 miles long from Atlanta to Savannah. J. Randolph Anderson of Savannah, who heads the list of incorporators, is reported as saying that the line will be built, and as soon as the stock is floated survey will begin. The other incorporators are W. W. Williamson, A. S. Guckenheimer, T. F. Walsh, Jr., W. E. O'Connor, all of Savannah, and G. S. Johnston, J. G. Blitch, J. A. Brannen, R. Simmons and D. N. Bacot of Bulloch county.

Stillmore, Ga.—The Brinson Railroad is reported to have completed five miles of grade from Springfield towards Savannah, and the right of way is ready nearly to Sylvania. George M. Brinson is president.

St. Petersburg, Fla.—Mr. R. H. Thomas, secretary, writes the Manufacturers' Record that the length of line to be built soon by the Bayboro Investment Co. is one and one-half miles along Tampa bay, south. C. L. Howard is president; H. A. Murphy, vice-president; T. K. Wilson, treasurer. It will connect with the Atlantic Coast Line and the Seaboard Air Line via steamer and the St. Petersburg & Gulf trolley line.

Thomasville, N. C.—Reported that W. T. Van Brunt, Dee Allen and associates of New York city have purchased the railroad of Capt. M. L. Jones from Thomasville to Denton, about 18 miles. Mr. Van Brunt is elected president; Mr. Allen, vice-president, and Mr. George P. Cowper, secretary-treasurer. The new company proposes to extend the road to other towns; offices at Denton, N. C.

Tremont, La.—The Tremont & Gulf Railway is reported to have completed and is now operating its extension southward from Chathamville via Jonesboro Junction to Pyburn Junction, La., 26 miles, and on branches from Jonesboro Junction to Jonesboro, about 20 miles, and from Pyburn Junction to Dobson, La., about 10 miles.

Vicksburg, Miss.—The Southern Railway is reported to have made a survey from Belzoni, Miss., to Vicksburg, about 60 miles. E. M. Durham, Jr., principal assistant engineer at Birmingham, Ala., is in charge of the work.

Waycross, Ga.—The Bailey Manufacturing Co. is reported to have begun construction on the Waycross end of the Waycross, Nashville & St. Mary's Railroad. Capt. L. Johnson of St. Mary's, Ga., is also interested.

Wichita Falls, Texas.—Mr. T. P. Duncan, a director in the company, informs the Manufacturers' Record that the Texas & Oklahoma Construction Co. of Wichita Falls is to build the Wichita Falls & Northwestern Railway, 30 miles, from Wichita Falls northwest into Oklahoma. Frank Kell is manager and J. W. Field is engineer.

Street Railways.

Montgomery, Ala.—The Montgomery Traction Co. proposes to build an extension from Montgomery to Wetumpka, Ala., and thence to Anniston, Ala. Construction will begin next spring as far as Wetumpka.

Oklahoma City, O. T.—The Oklahoma City Railway Co. is reported to have closed a contract to extend its Colcord Park line, the work to be completed by January. A further extension is expected.

MACHINERY, PROPOSALS AND SUPPLIES WANTED.

Manufacturers and others in need of machinery of any kind are requested to consult our advertising columns, and if they cannot find just what they wish, if they will send us particulars as to the kind of machinery needed we will make their wants known free of cost, and in this way secure the attention of machinery manufacturers throughout the country. The Manufacturers' Record has received during the week the following particulars as to machinery that is wanted.

Alcohol Machinery.—Thomas Flanagan, No. 94 The Algonquin, Norfolk, Va., wants prices on denatured alcohol machinery.

Angle Iron.—See "Iron Products."

Baling Presses.—W. H. Hortenstein, Box 273, Fort Worth, Texas, wants addresses of manufacturers of baling presses. (See "Cotton-Bagging Machinery.")

Beltmaker's Press.—Box 262, Wilmington, N. C., wants one beltmaker's press to take belts as wide as 24 inches; second-hand preferred.

Boiler.—Florence Pump & Lumber Co., H. H. Case, manager, Mobile, Ala., wants a second-hand 150-horse-power tubular boiler; size preferred 18 feet by 72 inches; stack 60 feet or longer; must be complete in every way, with front grate bars and fittings. Quote lowest cash price f. o. b. Mobile.

Boiler.—See "Engine and Boiler."

Boilers.—See "Engines and Boilers."

Box Machinery.—Blackstone Lumber & Manufacturing Co., Blackstone, Va., wants prices and full information regarding equipment for box factory; capacity not less than 25,000 feet of lumber daily.

Brick Machinery.—J. B. Blades, Newbern, N. C., wants machinery for making bricks from sand and cement.

Building Materials.—E. L. Bolen, Temple, Texas, wants staffwork.

Builders' Supplies.—Mark Cooper, Salisbury, Md., wants to take the agency for Cuba on contractors' and builders' supplies, and desires to correspond with firms.

Building Supplies.—A. St. C. Dunstan, Auburn, Ala., wants catalogues, prices and descriptive literature on cabinet mantels, grates, tiling for same, porch columns, composition caps for same, paneled hardwood wainscoting, grilles, doorways, consisting of door, frame and leaded glass side lights.

Canal Construction.—Bids will be received until December 12 at the office of the Isthmian Canal Commission, Washington, D. C., for completing the construction of the ship canal upon the Isthmus of Panama between the Caribbean sea and the Pacific ocean. Copies of the formal invitation, proposed contract and bonds can be obtained at the office of the chairman of the commission, Washington, D. C., or from assistant purchasing agents, 24 State street, New York; Custom-house, New Orleans, La., and 1086 North Point street, San Francisco, Cal.; also from the office of the Chief Quartermaster, U. S. Army, Chicago, and Depot Quartermaster, U. S. Army, St. Louis, Mo.

Concrete-block Machinery.—See "Brick Machinery."

Concrete Wall.—Bids will be received until October 23 at the office of J. A. Lipscomb, city engineer, Manchester, Va., for a concrete and stone wall 47 feet long by 8 feet high, 2½ feet at base and 1 foot finish at top; specifications and forms on file at office of City Engineer. Committee on streets reserves usual rights.

Cotton-bagging Machinery.—W. H. Hortenstein, Box 273, Fort Worth, Texas, wants addresses of manufacturers of cotton-bag printing presses for printing four colors at one operation, also manufacturers of automatic cotton-bag cutting machines, drying trucks, baling presses, sizing machinery, etc.

Crane.—See "Pumps, etc."

Crate Machinery.—See "Woodworking Machinery."

Ditching.—Interstate Realty & Improvement Co., 620 Chestnut street, St. Louis, Mo., wants bids for making about 12 miles of drain ditches eight miles of Houston, Texas; about 40,000 yards of dirt.

Dredging Boat.—Bids will be received until November 1 at the office of D. W. Ross, general purchasing officer, Isthmian Canal Commission, Washington, D. C., for furnishing dipper dredge, tubular boilers, smoke boxes, steel stacks, feed pumps, check valves, pipe bends, damper regulators, saw grinders, screw punches, steel rope, lumber, etc., by steamer, free of all charges, on dock at either Colon (Atlantic port) or La Boca (Pacific port), Isthmus of Panama. Blanks and general information relating to Circular No. 335 may be obtained at office of purchasing officer, Washington, D. C.; assistant purchasing agents, 24 State street, New York; Custom-house, New Orleans, La.; 1086 North Point street, San Francisco, Cal., and 410 Chamber of Commerce Building, Tacoma, Wash.; also from Chief Quartermaster, Chicago; Depot Quartermaster, St. Louis; Depot Quartermaster, Jeffersonville, Ind.; Chief Quartermaster, Atlanta, Ga., and the Commercial Club, Mobile, Ala.

Drying Machinery.—G. A. Dunlop, 525 Empire Building, Atlanta, Ga., wants new or second-hand drying machinery of from 60 to 100 tons daily capacity. Material to be dried is a white shale or soft rock, and dryer must not change color of same.

Drying Trucks.—W. H. Hortenstein, Box 273, Fort Worth, Texas, wants addresses of manufacturers of drying trucks. (See "Cotton-bagging Machinery.")

Electrical Equipment.—First Baptist Church, Albertville, Ala., wants an electric dynamo with power enough to light audito-

rium 40x80 feet, and engine large enough to drive dynamo and to pump water from well 30 feet deep into baptistry. Address W. P. Goodwin, Albertville, Ala.

Electrical Equipment.—Mark Cooper, Salisbury, Md., wants to correspond with manufacturers of electrical machinery, dynamos, etc., relative to taking agency for Cuba.

Electric Motors.—Southwest Lingerie Co., 707 East Houston street, Sherman, Texas, wants prices on electric motors to operate sewing machines.

Elevator.—Roemer Bros., Bowling Green, Ky., want electric elevator.

Elevator.—J. W. Rowe Company, Inc., Hampton, Va., will want to purchase electric freight elevator within 60 days.

Engine.—See "Pumping Plant."

Engine.—See "Electrical Equipment."

Engine and Boiler.—J. W. Winders, Castle, N. C., wants 25 to 30-horse power engine and boiler for portable sawmill.

Engines and Boilers.—Mark Cooper, Salisbury, Md., wants to correspond with manufacturers of engines and boilers relative to taking agency for Cuba.

Evaporator.—American Fiber Co., Davis street, Jacksonville, Fla., wants a large evaporator to dry berries which are something like a prune. Want to dry 1000 to 2000 daily.

Fertilizer Machinery.—See "Mixing Equipment."

Fertilizer Mixer.—Carolina Ice & Packing Co., Darlington, S. C., wants a new or second-hand small fertilizer mixer.

Floor-scrapping Machine.—E. E. Whitney, 83 Union street, Memphis, Tenn., wants a hardwood floor-scrapping machine.

Furniture Factory.—The Cullen Company, H. D. Cullen, secretary, Athens, Ala., wants catalogues and quotations on machinery for small plant manufacturing the plainer and simpler kinds of furniture.

Galvanized Sheet Iron.—See "Iron Products."

Grille Work.—See "Building Supplies."

Handles.—C. T. Williamson Wire Novelty Co., 634 Badger avenue, Newark, N. J., wants dogwood and cocobola corkscrew handles.

Heating Apparatus.—First Baptist Church, Albertville, Ala., wants steam-heating apparatus sufficient to heat auditorium 40x80 feet. Address W. P. Goodwin, Albertville, Ala.

Iron Products.—Continental Blow-pipe Co., A. J. Leitch, president and general manager, Lexington, N. C., wants to purchase galvanized sheet-iron in car lots, angle-iron in small quantities, band-iron, round and flat iron, rivets, solder, etc.

Machine Tools.—Bids will be received until November 13 at the Bureau of Supplies and Accounts, Navy Department, Washington, D. C., for furnishing at the navy-yards, Portsmouth, N. H., Boston, Mass., Washington, D. C., Norfolk, Va., and Pensacola, Fla., as specified, a quantity of machine tools, as follows: Schedule 209, traveling crane. Schedule 210, planer, motor-driven pumps, 60-ton crane. Schedule 211, grinder, drill, lathes, boring and drilling machine, hydraulic press, traveling crane. Schedule 212, well pump. Applications for proposals should designate the schedule desired by number. Blank proposals furnished on application to the navy pay office, New York, N. Y., or to the bureau; H. T. B. Harris, paymaster-general, U. S. N.

Machine Tools.—High Point Machine Works, High Point, N. C., wants to purchase engine lathe, swing 40 to 48 inches, about 10 or 14 feet between centers; also a planer 36x36x10; second-hand in good condition.

Machinery in General.—A. C. Stanstill, Roanoke, Va., wants catalogues and dealers' prices on general machinery and mechanical supplies, contractors' equipments, etc.

Mixing Equipment.—J. H. Parish & Son, Adel, Ga., want guano-mixing outfit.

Paving.—Bids will be received until October 24 at the office of John M. G. Carrera, City Clerk, St. Augustine, Fla., for paving Valencia street with bitulithic pavement and repairing other streets with asphalt. Bids by the square yard are called for; bitulithic, 4894 square yards; asphalt, 430 square yards; concrete, 30 cubic yards; plans and specifications on file in City Clerk's office.

Paving.—Bids will be received until October 23 at office of E. T. D. Myers, Jr., Room 717 Mutual Building, Richmond, Va., for improving Mary Washington avenue, Fredericksburg, Va.; work to consist of grading, gutters, curbing, sidewalks and macadam roadways. Specifications can be seen at Richmond or at office of E. W. Mills, chairman, Fredericksburg, Va.; certified check for \$100.

Paving.—E. F. Hunter, City Clerk, Alexandria, La., will receive bids until November 6 for paving sidewalks with concrete and constructing curbing with cement or brick on a portion of five streets, in accordance with plans and specifications on file in the office of Ira M. Sylvester, City Engineer, Rapides Bank Building, Alexandria, La. Certified check for \$100 must accompany each bid. Separate bids desired on brick and cement curbing; usual rights reserved.

Paving.—Baltimore (Md.) Board of Awards, City Hall, will receive proposals until October 24 to grade, curb and pave with treated-wood blocks Holliday street between Baltimore and Fayette streets. Specifications and proposal sheets may be obtained from B. T. Fendall, City Engineer, City Hall, who will superintend the work.

Piping.—New Orleans Roofing and Metal Works, Lafayette & Dryades streets, New Orleans, La., wants addresses of manufacturers of stovepipe elbows.

Planer.—See "Pumps, etc."

Planing-mill Machinery.—The Cullen Company, H. D. Cullen, secretary, Athens, Ala., wants catalogues and quotations on planing-mill machinery. (See "Sawmill.")

Plumbing Goods.—Mark Cooper, Salisbury, Md., wants to correspond with manufacturers of plumbing goods relative to taking agency for Cuba.

Pottery Machinery.—Battley Machinery Co., Rome, Ga., wants addresses of manufacturers of machinery for making jugs and similar goods.

Printing Contract.—Southern Home Insurance Co., J. W. Sample, secretary, Bartow, Fla., wants estimates on printing and furnishing insurance policies.

Printing Press.—W. H. Hortenstein, Box 273, Fort Worth, Texas, wants addresses of manufacturers of cotton-bag presses for printing four colors at one operation. (See "Cotton-bagging Machinery.")

Pumping Plant.—O. C. Crane, Terra Alta, W. Va., wants a small engine to pump water from a well and force into a tank 30 feet high, and a pump for same, all to be connected up complete.

Pumps, etc.—Bids will be received until November 13 at the Bureau of Supplies and Accounts, Navy Department, Washington, D. C., to furnish at the navy yard, Washington, D. C., one planer, two motor-driven pumps and one 60-ton crane. Applications for proposals should refer to Schedule 210. Blank proposals will be furnished on application to the bureau; H. T. B. Harris, Paymaster-General, U. S. N.

Railway Equipment.—Gibbes Machinery Co., 804 West Gervais street, Columbia, S. C., wants price f. o. b. Ulmers, S. C., on three miles of 30-pound relaying rail with joints and spikes.

Railway Equipment.—Texas & Oklahoma Construction Co., T. P. Duncan, director, Wichita Falls, Texas, will probably want to purchase two good slightly-used or new locomotives.

Railway Equipment.—Joseph E. Bowen, 901-902 Bank of Commerce Building, Norfolk, Va., wants new or relayers 25-pounds steel rail, 10 miles; for delivery first of next year.

Railway Equipment.—Jos. E. Bowen, Norfolk, Va., is in the market for 50 36-inch-gauge new log cars, 40,000 capacity, with automatic couplers, for January delivery; also 10 miles of 30-pound rail, new or relayers.

Railway Equipment.—Bond & Montgomery, Rolling Fork, Miss., wants 12-pound new or second-hand light steel rail with fasteners and spikes for laying three miles of tram road.

Railway Equipment.—Tar River Lumber Co., Rocky Mount, N. C., wants one 36-inch-gauge hand car for immediate use; either new or second-hand in good condition.

Railway Equipment.—W. H. Saunders, secretary Kershaw Manufacturing Co., Inc., Chase City, Va., wants prices on new and second-hand tramroad equipment.

Rivets.—See "Iron Products."

Roofing.—Cox & Stroud, Ayden, N. C., want samples and net prices on 115 squares of gravel roofing f. o. b. Scotland Neck, N. C.; immediate delivery.

Sewing Machines.—Southwest Lingerie Co., 707 East Houston street, Sherman, Texas, wants prices on sewing machines.

Sawmill.—J. W. Winders, Castle, N. C., wants small portable sawmill with capacity of from 5000 to 10,000 feet daily; second-hand in first-class condition preferred.

Sawmill.—The Cullen Company, H. D. Cullen, secretary, Athens, Ala., wants catalogues and quotations on sawmill machinery. (See "Planing Mill.")

Sawmill.—W. H. Saunders, secretary Kershaw Manufacturing Co., Inc., Chase City,

Va., wants prices on new and second-hand 25,000-foot band mill.

Soap-manufacturing Materials.—Schiller & Sauerstein, Kaufstrasse 9, Haus Adress, Libau, Russia, want to correspond with American manufacturers of tallow and resin for soapmaking.

Soapstone Manufacturers.—H. G. Brown, Beaumont, Texas, wants addresses of soapstone manufacturers.

Solder.—See "Iron Products."

Steel Blades.—Mecklenburg Iron Works, Charlotte, N. C., wants prices on steel blades for a stalk-cutting machine; blades to be 2 3/4 inches wide, 22 inches long, 3-16 inch thick; one edge to have double bevel running back about one inch and each blade to have two oblong holes 3/4 inch by 5-16 inch; wanted without polish of machine steel, cheap as possible. Want prices in lots of 60, 120, 250 and 500 blades.

Telephones.—Mark Cooper, Salisbury, Md., wants to correspond with firms making telephones and equipment relative to taking agency for Cuba.

Tiling.—See "Building Supplies."

Tiling.—Frank Lyon, Rosslyn, Va., wants bids on Spanish tiling, 25 squares.

Well-boring Machinery.—O. M. Hooker, cashier Bank of Aurora, Aurora, N. C., wants artesian-well-boring machinery.

Woodworking Machinery.—See "Furniture Factory."

Woodworking Machinery.—Jos. R. Rands, Pinar Del Rio, Cuba, wants addresses of manufacturers of machinery for making crates and furniture.

Woodworking Machinery.—T. E. L., care Manufacturers' Record, Baltimore, Md., will want to purchase the following second-hand: One surface planer 26 inches or 30 inches, one finish planer 26 inches or 30 inches, one swing cut-off saw, one self-feed rip saw, two finish saws, one combination saw, two 18-inch jointers, one 30-inch band saw, one single molder, 6-inch head; one single tenoner, one chain mortiser, one band resaw, 36-inch wheel; one two-head shaper, iron bed; one bolt carver, one sander, three drums 42 inches.

Woodworking Machinery.—Rufus J. Woodcock, Asheville, N. C., wants machinery for the manufacture of plastering laths.

Woodworking Machinery.—See "Floor-scrapping Machine."

Industrial commissioner Rock Island-Frisco lines, Frisco Building, St. Louis, Mo.

Progress in Enlarging Plant.

One of the important manufacturing enterprises of Athol, Mass., is that of the Union Twist Drill Co. This company recently found it necessary to add largely to its facilities for manufacturing, and is now erecting a four-story brick addition of large size, in which will be installed a complete modern equipment for the manufacture of drills, reamers and other similar tools. The company expects to occupy this new addition in four or five months.

"Ideal" Concrete Machinery Exhibit.

Among the new and permanent exhibits of interest in the Builders' Exchange at Baltimore is that of the Ideal Concrete Machinery Co. of South Bend, Ind. This company manufactures the "Ideal" hollow-block machines, a complete line of which is included in the exhibit. Building contractors and others interested in hollow concrete blocks for building purposes are invited to visit the "Ideal" exhibit.

Mr. W. H. Ham, Concrete Engineer.

Mr. W. H. Ham, formerly reinforced-concrete engineer of the Tucker & Vinton Corporation, is now the concrete engineer of the General Fireproofing Co. of 156 Fifth avenue, New York city. This company manufactures expanded metal, herringbone expanded steel lath, twisted lug bars and girder frames. Mr. Ham is well known for his engineering work, and will doubtless earn additional reputation with his new principals.

Taylor Brokerage Co.

The Taylor Brokerage Co., cottonseed products and fertilizers, announces that, in addition to its Jacksonville (Fla.) office, it has completed all arrangements for an office in Macon, Ga., facilities having been obtained at 603 and 604 American National Bank Building. This company represents buyers or sellers strictly on commission. It has arranged with Messrs. Hopkins, Dwight & Co. of New York for the execution of New York orders.

Furnished the Portland Cement.

The Manufacturers' Record of September 29 presented a description of the Connecticut-avenue bridge, Washington, and on September 27 illustrated the structure. This sample of concrete construction has attracted considerable attention, and it may be of interest to cement users to know that 75,000 barrels of "Dragon" brand cement have been shipped for the work. The Lawrence Cement Co. of No. 1 Broadway, New York, has the contract.

Maryland Rail Co.'s Extensions.

The Maryland Rail Co. of Cumberland, Md., through its president, Howard H. Dickey, has leased the Baltimore & Ohio Railroad plate and bar mill. This adjoins the rail company's present plant, and on the latter it has secured an extension of lease which will provide for operating both plants for 13 years. It is proposed to devote the new mill to the manufacture of twisted square steel bars and other products of that kind used in reinforced concrete work.

New Car Standard and Door.

Mr. J. H. Nantz of Hartford, Ala., announces that he controls a patent standard for railroad flat cars for holding lumber, logs and other similar materials. This standard is said to be an improvement over similar devices used heretofore. It is a folding standard, and Mr. Nantz contemplates arranging to manufacture and market it. He also has a patented tight and ventilated door for box cars which he intends to introduce. Mr. Nantz is prepared to correspond with investors who can be interested in a proposition for manufacturing the new inventions.

Dr. Henry Mace Payne.

Reference has previously been made to Dr. Henry Mace Payne, civil and consulting engineer, offices in the White Building, Williamson, W. Va. It may be of interest to note that Dr. Payne has been elected general superintendent and chief engineer of the Mingo Block Coal Co., which has been organized by West Virginia and Boston capitalists. He will close his general engineering business in order to assume the duties of the new company, but his offices will remain at the same address. A reference to the proposed developments of the coal company may be seen in another column.

Prompt Shipments of Cement.

Out of the crowded conditions which have surrounded the Portland-cement interests all summer comes the announcement that the St. Louis Portland Cement Co., Colonial Security Building, St. Louis, Mo., is now in

INDUSTRIAL NEWS OF INTEREST

Millwork Plant on Market.

A plant for manufacturing sash, doors and general millwork is offered for sale or lease by Charles W. Kafer of Trenton, N. J. It is located in that city.

Educational Institution and Timber.

Mr. Edgar Stinson of Gordonsville, Va., offers for sale a farm of 201 acres in Limestone county, Alabama, and a girls' seminary in the Blue Ridge foothills.

Virginia Homes for Buyers.

Country homes on the historic rivers and bays of Virginia are offered for sale by Messrs. H. W. Hillenry & Co. of Charlottesville, Va. Requests for list and descriptions are invited.

Tennessee Farm for Sale.

A Tennessee farm of 400 acres is offered for sale by Mrs. W. R. Rankin of Jasper, Tenn. It is stated to be well improved, with five-acre orchard, vineyard, good water supply, rail and water transportation.

Factory Plant for Sale.

On November 5 there will be offered for sale at public auction a factory plant—buildings, machinery, etc.—located on Southern Railway at Danville, Va. Full details can be obtained from E. E. Bouldin of Danville.

Secured a Government Contract.

A Government contract of some importance has been awarded to the Hazlehurst Electric Co. of Charleston, S. C. It calls for the installation of electric wiring and arc lamps in Building No. 5 at the Charleston Navy Yard, the amount being about \$2500.

Virgin Timber in Virginia.

Original growth hardwood timber in Virginia is offered for sale. A 10,000-acre tract is the one in reference, and its owners state the soil is suitable for agricultural purposes after the timber is cut. Address W. G. Stevens, Lynchburg, Va.

Lumber Plant for Sale.

A saw and planing mill, with dry-kilns now being installed, is offered for sale. Plant will have capacity of 20,000 feet of lumber and is located in the midst of the North Carolina forests. For details address "Complete Plant," care of the Manufacturers' Record.

Mississippi Farm and Timber Land.

The owners of a Yazoo Delta property are offering it for sale or are willing to organize an operating company and take \$50,000 worth of stock. The property includes 3300 acres in cultivation and 3700 acres of hardwood timber. Address C. C. Barbour, Vicksburg, Miss.

Patent Attorney Seeks Engagement.

An experienced patent attorney is desirous of engaging with a firm having active patent interests. He is prepared to assume other duties besides those concerned directly with the patents. For further information address "Reliable," care of the Manufacturers' Record.

Opportunity for Hydraulic Engineer.

An opportunity for a competent hydraulic engineer of practical experience to obtain a commission in connection with building dams is offered by the Finkbine Lumber Co. of Wiggins, Miss. This company intends to

build dams on small streams carrying a large body of water at times, and wishes to engage an engineer to take charge of the work.

Has Ordered Atlas Boilers.

It is stated that the Atlas Engine Works of Indianapolis has just received an order from the United States Steel Corporation for a number of Atlas water-tube boilers which are to be installed in two plants of constituent companies. No definite information has been given out regarding the sale, though it is known to be one of considerable importance.

A Thousand-Acre Farm Offered.

Agriculturists and others who may be prepared to consider the purchase of a Southern farm property comprising 1000 acres of land are invited to address P. B. Willford, Americus, Ga. He offers for sale the property, which he states is in a high state of cultivation, including 60,000 peach trees, corn, cotton and other products. Write for details.

Open for Business Propositions.

Mr. Fred Muller, formerly secretary-treasurer of the Board of Trade, New Orleans, La., is prepared to consider business propositions. He has had 16 years' experience in the United States and Europe, especially in the organization of large enterprises. Those who may desire to correspond with Mr. Muller can address him care of the New Orleans Cotton Exchange.

The Stratton & Bragg Company.

In referring to the manufacturing facilities of the Stratton & Bragg Company last week the location of the enterprise was erroneously referred to as Petersburg, Pennsylvania. The company is located at Petersburg, Virginia, as is well known to its numerous customers throughout the South. It furnishes engines, boilers, sawmills, mill supplies, machinists' and plumbers' supplies, etc.

Mr. A. C. Stansill, Manufacturers' Representative.

It is announced that A. C. Stansill of Roanoke, Va., has established an agency to represent manufacturers of machinery, contractors' equipment, mechanical supplies and other kindred products. Mr. Stansill will have offices at Roanoke and Lynchburg, Va. He asks manufacturers to send him catalogues and dealers' prices, inviting correspondence relative to agencies.

A Useful Reminder.

The Hoffman-Ahlens Company, 625 East Main street, Louisville, Ky., is distributing a 15-inch brass-edge rule among its friends as a reminder of its distilling machinery and apparatus for turpentine and crude oil. With a very successful record of many years behind it, the company announces it is in a position to guarantee results. The company has an office in Cincinnati, Ohio, in addition to the Louisville office.

Controlling Interest for Sale.

The controlling interest in a wholesale drug house established on the Rock Island-Frisco lines is offered for sale. It is stated that the enterprise is in a profitable condition, and that good reasons will be given for wishing to sell the interest. Practical drug men are invited to investigate by writing for data about "File 4501." Address M. Schuler,

position where it can definitely promise cement shipments for specific days. Mr. A. H. Craney, in speaking of the situation recently, said he was glad to announce that he at last saw "daylight" ahead, and with splendid shipping facilities he was not only able to make promises, but to "make good" on the promises. His company has a large trade in its "Red Ring" brand cement.

Ekert High Resistance Materials.

Referring to its highest resistance steam materials, of which some mention was made in this column last week, the Ekert High Resistance Materials Co. says: "Our patented materials are not only of highest resistance power, but also greatly elastic. Metals are of great resistance, too, but not elastic, and packing is existing already, but has not the great resistance necessary in the modern industry and railroad service." The company's disc valves, special discs, sheet packing and other products should be investigated by those interested in high resistance steam materials. Write the offices at Dayton, Ohio.

Big Order for Concrete Machinery.

There was closed last week a big contract which indicates the rapid increase in the use of concrete machinery and the building and construction products manufactured by such machinery. The contract is from an Eastern company and calls for about \$250,000 worth of equipment. It was awarded to the Ideal Concrete Machinery Co. of South Bend, Ind. This company is well known as a manufacturer and dealer in concrete machinery and construction supplies, and has established a large trade in foreign countries besides its native relations. It is filling an order for \$100,000 worth of machinery for South America, a \$30,000 shipment for Mexico and a large contract from the United States Government for shipment to the Philippine Islands.

Enlarging Its Tool Works.

Possibly no make of tools distributed to users throughout the industrial world is better known than the product of the L. S. Starrett Company of Athol, Mass. Owing to the steadily increasing demand for its fine mechanical tools of all kinds the company recently found it necessary to add to its manufacturing facilities. It has under construction a four-story 45x282-foot addition, which it expects to occupy during December. The hacksaw-blade department will be removed into this new structure, and a part of the grinding department will also be removed there. One end of the building will be used as a storehouse.

Modern Plant at Clarksville, Tenn.

Clarksville, Tenn., has an entirely modern plant for general foundry and machine work in the establishment operated by the Clarksville Foundry & Machine Co. The mechanical equipment is composed of the latest improved machinery and devices for facilitating the character of work and trade solicited, and since June 1, when operations began, a large business has been obtained. The company makes a specialty of furnace, coke-oven and machinery castings, with especial attention given to heavy work. Its machine shop is 52x90 feet in size, equipped with a 50-horse-power engine and accompanying drill presses, lathes, planers, etc. The foundry is 62x90 feet and equally well equipped. In addition there is a large forge shop with complete equipment of modern tools. Mr. Guy R. Johnson is president and general manager of the company and E. T. Archer is superintendent.

Electrical Equipment for Big Steel Plant.

There has been much interest shown in the announcement of the United States Steel Corporation's new plant and industrial city to be built at Gary, Ind. The plant is to consume 5,000,000 tons of ore annually and produce 2,500,000 tons of steel. It is probably the most extensive industrial proposition ever planned, and the details of equipment are being carefully considered. The machinery will be driven by electricity. The rail mill will have induction motors of interest because of their size and special method of control. There will be six three-phase induction motors of from 2000 to 6000 horse-power to drive the main rolls. These motors are reversible and especially controlled. Because of the heavy overloads to which they will be subjected, each motor is provided with a heavy flywheel, which, with the system of control, stores up energy when running normally and returns it to the rolls when subjected to a heavy overload. In addition to the flywheels each motor has an overload capacity of 50 per cent. for one hour. Thus, three of the motors having a normal rating of 6000 horse-power can each deliver 9000 horse-power for one hour when called upon to do so. Mechanically, these

motors are of unusually sturdy construction, being built heavy and rigid to withstand the shocks to which they will be necessarily subjected. At the same time the construction is as simple as is consistent with reliability. The heavy bearings and general massive appearance of these motors is quite in keeping with the powerful rolls which they drive. The method of control for the motors has been especially designed by the General Electric Co. of Schenectady, N. Y., which is furnishing the electrical equipment.

Now Shipping Virginia Slate.

For the past year the Standard Slate Corporation has been developing its properties and is sending out its first shipment of slate this month. It is stated that the colors are most unusual, being dark blue, light and dark green and silver gray—all positive rich shades. Slate and mining experts have reported on the deposits, their examinations and tests showing gratifying results for all the uses to which slate is adapted. The property was formerly worked by a company which quarried near the surface an exceptionally fine quality of slate, but the Standard Slate Corporation has gone to a greater depth and found even better quality. The Standard Slate Corporation maintains its executive offices at Norfolk, Va.; sales and accounting offices at West Esmont, Va. It has ample capital, and the Southern and Chesapeake & Ohio railways enable it to reach all markets. Mr. A. A. Blow of New York is president; M. C. Elliott of Norfolk, vice-president; R. E. Shaw of West Esmont, general manager; J. A. Pugh of Norfolk, secretary-treasurer, and William Barret Ridgely of Washington, chairman of the board.

Coxey Homes.

The discovery of a new wick principle—so effective and yet so simple that it's a wonder no one thought of it before—has so revolutionized the manufacture of oil heaters and lamps that explosions, smoke and smell caused by imperfect wick arrangement may safely be regarded as things of the past. This new wick attachment is to be found on the "Perfection" oil heater. Interesting tests show that, although the heater gives intense heat, the wick cannot be turned too high or too low—absolute safety thus being assured. One other feature which is worthy of mention is the smokeless device, which prevents all smoke and odor. The portability of the heater also commends it for general household use. Heater is very light, and can be easily carried about. Its simple operation, usefulness in heating water and warming cold rooms make it a most handy and useful article in any home. This heater is so far superior to other oil heaters and is of such fair price that its universal adoption is but a matter of time. The "Rayo" lamp, which is made by the manufacturers of the "Perfection" oil heater, is without doubt the best lamp for all-round household use. Is equipped with the latest improved burner, and gives a bright, steady light at small cost. Suitable for any room, whether library, dining-room, parlor or bedroom. The "Perfection" oil heater and the "Rayo" lamp form a combination for real home comfort. When consideration is taken of the simple operation of both heater and lamp, their absolute safety, the intense heat generated by the one and the bright and steady light given by the other—all without smoke or smell—their value in any home, large or small, can be somewhat appreciated. The heater and lamp are sold by dealers.

TRADE LITERATURE.

Direct-Current Solenoid Brakes.

To meet the increasing demand for reliable electric brakes used to control the action of machinery operated by electric motors, the Whiting Foundry Equipment Co. offers its direct-current solenoid brake. This brake is described and illustrated in catalogue No. 48. In catalogue No. 47 the Whiting Company describes its lathes for foundry use. The Whiting Foundry Equipment Co. has its general offices at Harvey, Ill.

The Ever-Best—It's Electrical.

The Ever-Best Magazine for September contains a series of drawings showing the evolution of lighting. It carries a man's memory back to the days when there was no such thing as either the incandescent or the arc lamp, nor any of the various comforts which have come with the general and increasing use of electricity in the home. The magazine is issued by the Ewing-Merkle Electric Co., 1106 Pine street, St. Louis, Mo.

Railway Motors and Controllers.

Bulletin No. 1053 of the Allis-Chalmers Company is from the electrical department of that well-known enterprise. It describes and illustrates the Allis-Chalmers railway

motors and controllers, the details of which will be of interest to those who are operating or contemplate the operation of street and interurban railways. The company furnishes complete street and interurban railway equipments, including prime movers and all electrical apparatus for power-houses, substations, cars and lines, besides having the exclusive right to manufacture the Christensen airbrakes. Write the offices at Milwaukee, Wis., for a copy of the bulletin.

The Faunt Le Roy Elevators.

People who are interested in improved elevators for passenger and freight service should have a copy of the latest Faunt Le Roy publication. This is a brief illustrated catalogue of the elevators manufactured by the Faunt Le Roy Elevator Co. of Baltimore, and will be found of interest to architects, building contractors and owners of all kinds of structures wherein elevator equipment is required. It briefly describes and illustrates the Faunt Le Roy equipments, which are built in the company's own factory at Highlandtown, Baltimore, Md. The plant is thoroughly equipped with modern machinery, employs a large force of skilled workmen for manufacturing and installation, and has two railroads at its doors to facilitate shipments.

The New "Miracle" Catalogue.

The concrete industry continues to grow rapidly and enjoy a full share of that prosperity which the entire country is appreciating. Especially is there a decided growth noted in that section of the concrete industry concerned in the manufacture of cement building blocks and other similar products. The Miracle Pressed Stone Co. of Minneapolis, Minn., calls attention to this in its new catalogue of "Miracle" staggered air space cement building-block machines, cement sewer pipe and tile molds, and cement sidewalk-block machines. The new Miracle catalogue is especially complete in its explanatory text and accompanying photographic views. It tells all about the equipments the company offers, the market for the Miracle products and the possibilities for profit in establishing plants equipped with the machinery. All the various accompanying tools and devices, such as engines, spraying machines, cement mixers, paving tools, wheelbarrows for concrete, etc., are referred to.

Central Foundry Co. Catalogue.

The trade dealing in general foundry products and those who use supplies of this character will find one of the most complete catalogues extant embodied in catalogue and price-list "B" issued by the Central Foundry Co. This company manufactures all sizes of standard, medium and extra heavy cast-iron soil pipe and fittings, plumbers' ironwork, service boxes, valve boxes and miscellaneous castings; also the F. & W. combination vent, revent and drainage fittings (shown in catalogue C) and universal cast-iron pipe and fittings for water, gas, etc. (shown in catalogue U). With ore mines, furnaces, coal mines and coke ovens in Alabama, foundries in Anniston, Ala.; Bessemer, Ala.; South Pittsburg, Tenn.; Baltimore, Md.; Lansdale, Pa.; Newark, N. J.; Vincennes, Ind., and Medina, Ohio, the Central Foundry Co. operates extensive modern plants for providing the raw materials and manufacturing them into the products for which it has established a reputation throughout the entire country. In its new catalogue, a cloth-bound book of convenient size, people interested in the manufacture of a modern foundry system will find handy information for their benefit. The company's general offices are at 116 Nassau street, New York; branch offices and warehouses in New York, Chicago and San Francisco.

Consolidation Type Freight Locomotives.

A pamphlet just published by the American Locomotive Co., 111 Broadway, New York, describes and illustrates a large number of consolidation locomotives built for various railroads. It includes only locomotives weighing less than 175,000 pounds, and will be followed soon by a pamphlet illustrating designs of this type weighing more than 175,000 pounds. The pamphlet opens with a description of the 2-8-0 type, giving its distinguishing characteristics and its special advantages for heavy freight service or service on light rails where the wheel load is limited. Then follow four pages of tables giving the principal dimensions of 30 consolidation locomotives ranging in weights from 66,000 to 175,000 pounds, the tables being arranged in the order of the total weights of the locomotives. The next two pages show drawings of the side elevation and end elevation of a typical design of consolidation locomotive. The remainder is taken up with

photographic reproductions of the locomotives given in the tables with the tabular information concerning the design on the page opposite each photograph. This is the third of the series of pamphlets which is to be issued by the American Locomotive Co., and will include all the standard types of locomotives and constitute a record of the production of the company. Copies of the pamphlets already issued on the Atlantic, Pacific and Consolidation types may be had upon request.

This Manufacturer Helps the Hardware Dealer.

Possibly no manufactured product could be readily named that is more of a standard character than a padlock. It would seem that a padlock is not an article which could be advertised in such a way as to promote increased sales, and yet some recent efforts in this direction have been successfully made by a prominent manufacturer. This manufacturer not only exploits the specialties in a general way, but aims directly to assist the hardware dealer by issuing illustrated booklets of interest. The Yale & Towne Manufacturing Co. has been doing this, and several of its recent publications have been received. One of these is "The Little Black Box," the story of a marriage and the trouble and joy that came because of the existence of a mysterious black box. Another is "A Book About Padlocks," indicating 52 uses for a padlock and illustrating most of them, and it is surprising in how many ways one does not usually think of that a padlock can be useful. Another is "Suggestions for Selling Yale Padlocks." These publications, together with various others in the form of leaflets, labels, rubber stamps, envelopes, package tags and other data are supplied with the name and address of the dealer printed thereon, by the Yale & Towne Manufacturing Co. to those who sell its products. The Yale & Towne Manufacturing Co. has its general offices at No. 9 Murray street, New York city. It manufactures the Yale locks, builders' hardware, art metal work, chain blocks and electric hoists. No dealer who is interested in increasing his trade should fail to confer with the company regarding its helpful literature.

Relative to Electric Railways.

Trade literature of more than ordinary interest is comprised in a booklet issued by the Roberts & Abbott Company. It relates to electric railways and contains information of general interest which will be appreciated by owners of electric railway systems and by those who are projecting the construction of railways to be operated by electricity. When it is proposed to build an electric railway is undeniable that it is necessary to thoroughly investigate the proposition if the feasibility and the possibilities for profit taking are to be considered. If the proposition is not good the sooner this is ascertained the less time and money will be wasted. If the proposition is good, success in financing depends largely upon proper presentation. Therefore a complete report by experienced consulting and supervising engineers must be arranged for. The Roberts & Abbott Company issues its booklet for the purposes of presenting valuable data of a general nature regarding electric railways, as well as emphasizing the services which it, as engineer, has given to this phase of an engineer's work. It has been associated with more than 150 electric railways, for many having the entire engineering and completion of the plant, for others important portions of the enterprise, and for others reports on proposed roads, tests and reports as to changes in established systems, and valuation of properties. The company has also been retained as engineer for more than 300 plans for electric lighting, heating, power transmission, waterworks, etc. It says the amount involved in the enterprises with which it has been connected is more than \$150,000,000. These few references will serve to indicate the completeness of the Roberts & Abbott booklet. The company has its general offices in the Schofield Building, Cleveland, Ohio; branch offices in Philadelphia, Baltimore and Birmingham. It invites inquiries for its publication.

Mr. John Wood has been elected business manager of the Board of Trade of Greenville, S. C., as a step toward the broadening of that body's work.

The great meet of the Virginia-Carolina Fox Hunters' Association will take place this year October 22-31 with the Mecklenburg, at Chase City, Va., as its headquarters. The program will include trap shoot-

ing, a bench show, races, daily fox hunts and a number of balls and banquets.

Takes a Blue View of Cotton.

Editor Manufacturers' Record:

I want to say in regard to the cotton crop that there is going to be this year some of the most disappointed bears and bulls since the winter of 1904. The big stalk almost all over the cotton belt has a tendency to disappoint the reporters, for it never has the fruit of a medium to small stalk. Some of the bears are howling a big crop in Texas. No matter if Texas was to make the biggest crop it ever made, it will be impossible to have a 12,000,000-bale crop. There is the very best of reason to look for a very short crop, as Alabama, Georgia, North Carolina, South Carolina and Virginia have had a steady pour of rain for three months. The rain and storm for the past 10 days have done awful damage almost all over the entire belt. There was so much cotton open in the fields when these storms and rain began and the rain has continued until the cotton on the ground is rotten and can never be picked up. Again, in all the low places, right where we make the very best, cotton is rotting in the boll. We are bound to have a very short crop, which will be found out at the end of the season, if not before.

Since writing the above the rain has poured every day and night, and at this date there is no prospect of dry weather. Yesterday I went to the cotton field with six others to help me, and though it was wet we picked 135 pounds, and find it in the very worst kind of condition. Of course, not all the seed are sprouted, but in my fields at least 25 per cent. is sprouted, and sprouts from one-half to two inches long cling to the seed. A great deal is perfectly rotten. All that has fallen out on the ground. All of us that know anything about cotton know what such a condition means. Now, when we come to think that there are possibly 4,000,000 to 6,000,000 bales in the fields, a great deal of which is even in worse condition than it is here, for I live within 80 miles of the cotton belt line, we begin to realize the damage we have got to put up with. Bolls that are not opened are rotting very rapidly, and if this weather condition holds on a week longer there will be comparatively no cotton to open. There is no chance for much over 3,000,000 bales of good cotton, as it is only what was gathered up to September 25 that can grade in the middlings. Any man who understands these conditions, as the cotton farmer does, is compelled to see that we have got a heavy account of low-grade cotton and the shortest crop we have had in years, no matter how good the weather may be hereafter. It is a condition we have never had before in the knowledge of our oldest men. I asked a man who has been ginning cotton 40 years how he would gin this sprouted cotton, and he said he had never ginned any or seen any before. I would not be in the least surprised if middling cotton brought 20 cents before March. It seems that the bears will not believe such reports as these, but they are going to believe them some day not very far off. The fact that I am 300 miles from the coast and that the damage is worse the nearer the coast we go should be considered in our estimates. If we don't have clear weather right away there is no telling what destruction will be wrought. The sun has not shone here two hours in 10 days, and all kinds of crops are ruined in the fields. Alabama would have the greatest pea crop ever known if this spell of weather had not rotted them. The hay crop has been almost completely lost.

MARK RAMSEY.

Wellington, Ala., October 6.

FINANCIAL NEWS

The MANUFACTURERS' RECORD invites information about Southern financial matters, items of news about new institutions, dividends declared, securities to be issued, openings for new banks, and general discussions of financial subjects bearing upon Southern matters.

Review of the Baltimore Market.

Office MANUFACTURERS' RECORD.

Baltimore, Md., October 17.

While there was a little better feeling in the Baltimore stock market during the past week, business was generally quiet and prices steady until the end of the period, when United Railways incomes were active.

In the trading United Railways common sold from 15½ to 15¾; the trust certificates from 15¾ to 16¼; the income bonds at 68¾; the income bonds, Maryland Trust certificates, from 69 to 70½; the funding 5s from 89 to 89¾; the 4s from 89 to 89¼; United Light & Power 4½s, 95½; Consolidated Gas, Electric Light & Power preferred, 85; Gas 6s, 106¼; do. 4½s, 96¼; Seaboard common, 25; do. 4s, 83½ to 83¾; Cotton Duck 5s, 82½ to 82¾; Consolidated Cotton Duck, 13; do. preferred, 34; G. B. S. Brewing common, 9; do. incomes, 38 to 36¾; do. 1sts, 59½ to 59.

Bank of Commerce stock sold at 26; Commercial and Farmers' blue certificates, 130; Mechanics', 27; Citizens', 30 and 29½; Fidelity Trust, 208; Howard Bank, 12½.

Other securities were traded in as follows: Maryland, Delaware & Virginia preferred, 25 to 27; Houston Oil common, 10 to 11; do. preferred, 49 to 48; Carolina Central 4s, 95; Virginia Electric Railway & Development 5s, 100; Pittsburg & Allegheny Telephone 5s, 82; Northern Central Railway stock, 107¼; Comas Cigarette Machine common, 26; do. preferred, 77½ to 79; Charleston City Railway 5s, 106; Charleston & West Carolina 5s, 110; Norfolk Street Railway 5s, 108 to 107¼; Alabama Consolidated Coal & Iron preferred, 93 to 92½; Consolidation Coal, 97¾ to 97¼; United States Steel common, 50; Anacostia & Potomac 5s, 102½; Georgia & Alabama 5s, 109¼; Norfolk Railway & Light 5s, 100¼ to 100½; Western North Carolina 6s, 113; Suffolk & Carolina 5s, 90¼; Western Maryland second 4s, 71; Georgia Southern & Florida 5s, 111½; Lake Roland 5s, 116¼; Maryland Telephone 5s, 94; Charlotte, Columbia & Augusta 2ds, 110; Atlanta Consolidated Street Railway 5s, 105½; Baltimore City Passenger 5s, 105¾; Lexington Railway 5s, 101¼; Belvedere Hotel second 5s, 55; Maryland & Pennsylvania Railroad stock, 34¼; Potomac Valley 5s, 113; Atlantic Coast Line 4s, 98½.

SECURITIES AT BALTIMORE.

Last Quotations for the Week Ended October 17, 1906.

Railroad Stocks.	Par.	Bid.	Asked.
Atlantic Coast Line.....	100	140	142½
Atlantic Coast Line of Conn.....	100	...	355
Georgia Southern & Florida.....	100	31	36
Georgia Sou. & Fla. 1st Pfd.....	100	98	...
Georgia Sou. & Fla. 2d Pfd.....	100	80	85
Maryland & Pennsylvania.....	100	34¼	40
Norfolk Railway & Light.....	25	15	17
Seaboard Company Common.....	100	...	27
Seaboard Company 1st Pfd.....	100	79	...
United Railways & Elec. Co.....	50	15½	16

Bank Stocks.	Par.	Bid.	Asked.
Citizens' National Bank.....	10	29½	31
Commercial & Far. Nat. Bank.....	100	...	115
Com. & Far. Nat. Bk. Blue Cfs.....	100	131	140
German-American Bank.....	100	110	115
National Bank of Baltimore.....	100	115	120
National Bank of Commerce.....	15	28	...
National Howard Bank.....	10	39	...
National Marine Bank.....	10	27	...
National Mechanics' Bank.....	100	114	120
Third National Bank.....	100	...	125
Western National Bank.....	20	37½	40

Trust, Fidelity and Casualty Stocks.	Par.	Bid.	Asked.
Baltimore Trust & Guarantee.....	100	300	315
Fidelity & Deposit.....	50	133¼	137
Mercantile Trust & Deposit.....	50	137	141
Union Trust.....	50	...	55

Miscellaneous Stocks.

Ala. Con. Coal & Iron Pfd.....	100	92	94
Consol. Cotton Duck Common.....	50	12¾	14
Consol. Cotton Duck Pfd.....	50	32½	35

Consol. Gas, E. Lt. & Power.....	100	35¼	...
Consol. Gas, E. Lt. & P. Pfd.....	100	80	86
Consolidation Coal.....	100	97	97½
G. B. & S. Brewing Co.....	100	...	8
George's Creek Coal.....	100	74	80
Mer. & Miners' Trans. Co.....	100	175	180

Railroad Bonds.

Albany & Northern 5s, 1916.....	95	...	...
Atlanta & Charlotte 1st 7s, 1907.....	101	...	...
Atlan. Coast Line 1st Con. 4s, 1882.....	98	98½	...
Atlantic Coast Line (Conn.) 5s.....	113½	...	...
Atlantic Coast Line (Conn.) 4s.....	92½	...	...
Charleston & West. Car. 5s, 1916.....	110½	110½	...
Char. Col. & Aug. 1st 5s, 1910.....	114	...	...
Char. Col. & Aug. 2d 7s, 1910.....	109¾	111	...
Columbia & Greenville 1st 6s, 1916.....	112½	...	...
Florida Southern 4s, 1910.....	95¼	97	...
Georgia & Alabama 5s, 1915.....	109¼	109½	...
Georgia, Car. & North. 1st 5s, 1929.....	109½	...	...
Georgia Pacific 1st 6s, 1922.....	120	...	...
Georgia South. & Fla. 1st 5s, 1915.....	111½	112	...
Maryland & Pennsylvania 4s, 1951.....	92¾	93	...
Petersburg, Class A 5s, 1926.....	115	...	...
Petersburg, Class B 6s, 1926.....	124	...	...
Piedmont & Cum. 1st 5s, 1911.....	102¼	102¼	...
Raleigh & Augusta 1st 6s, 1926.....	120	...	...
Savannah, Fla. & West. 5s, 1934.....	114	...	...
Seaboard Air Line 4s, 1950.....	83¼	83¾	...
Seaboard Air Line 5s, 10-year, 1911.....	102¼	103	...
Seaboard & Roanoke 5s, 1926.....	109½	110½	...
South Bound 5s, 1911.....	110	110½	...
Southern Railway Con. 5s, 1994.....	117	...	...
Suffolk & Carolina 5s, 1911.....	97½	108	...
Virginia Midland 2d 6s, 1916.....	113	...	...
Virginia Midland 4th 3-4-5s, 1921.....	107½	...	...
Virginia Midland 5th 5s, 1926.....	108¾	...	...
Western Maryland new 4s, 1952.....	82½	83¼	...
West. North Carolina Con. 6s, 1914.....	112¼	113	...
West Virginia Central 1st 6s, 1911.....	106¾	...	...
Wilmington, Col. & Aug. 6s, 1910.....	107	108	...
Wilmington & Wel. Gold 5s, 1935.....	115½	...	...

Street Railway Bonds.

Anacostia & Potomac 5s, 1915.....	102	102½	...
Atlanta Con. St. Rwy. 5s.....	106	106	...
Augusta Rwy. & Elec. 5s, 1910.....	102	...	...
Baltimore City Passenger 5s, 1911.....	106	106	...
Charleston City Railway 5s, 1923.....	106½	107	...
Charleston Con. Electric 5s, 1909.....	93	94	...
City & Suburban 5s (Wash.), 1948.....	105	106	...
Knoxville Traction 1st 5s, 1928.....	101	102	...
Lexington Railway 1st 5s, 1919.....	101	102	...
Mass. Rwy. & Lt. Con. 5s, 1953.....	95	101	...
Metropolitan 5s (Wash.), 1925.....	114	115	...
Newport News & Old Pt. 5s, 1938.....	90	...	...
Norfolk Railway & Light 5s.....	100¼	101	...
Norfolk Street Railway 5s, 1944.....	107½	...	...
United Railways 1st 4s, 1919.....	89	89¼	...
United Rys. Inc. 4s, 1849, Tr. Cfs.....	70	70¼	...
United Railways Funding 5s.....	89¼	89½	...

Miscellaneous Bonds.

Consolidated Gas 6s, 1910.....	106	106½	...
Consolidated Gas 5s, 1933.....	106½	...	...
Consolidated Gas 4½s, C. 4s.....	96¼	97	...
G. B. & S. Brewing 1st 3-4-5s.....	59	59½	...
G. B. & S. Brewing 2d Income.....	36¾	36¾	...
Maryland Telephone 5s.....	93	94½	...
Mt. V. & Woody's Cot. Duck 5s.....	82¾	83	...

SOUTHERN COTTON-MILL STOCKS.

Quotations Furnished by Hugh MacRae & Co., Wilmington, N. C., for Week Ending October 15.

	Bid.	Asked.
Abbeville Cotton Mills (S. C.).....	85	86
Aiken Mfg. Co. (S. C.).....	85	81
Anderson Cotton Mills (S. C.).....	100	100
Arkwright Cotton Mills (S. C.).....	122	123
Augusta Factory (Ga.).....	80	80
Avondale Mills (Ala.).....	107	110
Belt Mills (S. C.).....	106	106
Bibb Mfg. Co. (Ga.).....	122	122
Brandon Mills (S. C.).....	118	120
Cabarrus Cot. Mills (N. C.) Pfd.....	120	120
Chadwick Mfg. Co. (N. C.) Pfd.....	102	102
Chiquola Mfg. Co. (S. C.).....	92	96
Clifton Mfg. Co. (S. C.) Pfd.....	122	124
Clifton Cotton Mills (S. C.).....	102	103
Columbia Mfg. Co. (Ga.).....	96	101
Courtenay Mfg. Co. (S. C.).....	100	100
Dallas Mfg. Co. (Ala.).....	92	95
Darlington Mfg. Co. (S. C.).....	63½	63½
Eagle & Phenix Mills (Ga.).....	129	130
Enoree Mfg. Co. (S. C.).....	132	133
Enoree Mfg. Co. (S. C.) Pfd.....	80	84
Enoree Mfg. Co. (S. C.) Pfd.....	90	101
Enterprise Mfg. Co. (Ga.).....	86	92
Exposition Cotton Mills (Ga.).....	200	...
Gaffney Mfg. Co. (S. C.).....	90	90
Gainesville Cotton Mills (S. C.).....	33½	40
Granby Cot. Mills (S. C.) 1st Pfd.....	59	66
Grantville Mfg. Co. (S. C.).....	160	160
Greenwood Cotton Mills (S. C.).....	91	91
Grendel Mills (S. C.).....	112	114
Henrietta Mills (N. C.).....	200	...
King Mfg. Co., John P. (Ga.).....	97	103
Lancaster Cotton Mills (S. C.).....	102	104
Lancaster Cot. Mills (S. C.) Pfd.....	97	99
Langley Mfg. Co. (S. C.).....	92	96
Laurens Cotton Mills (S. C.).....	166	170
Limestone Mills (N. C.).....	115	...
Lockhart Mills (S. C.) Pfd.....	97	100
Louise Mills (N. C.).....	90	95
Louise Mills (N. C.) Pfd.....	102	102
Marlboro Cotton Mills (S. C.).....	79	85
Mayo Mills (N. C.).....	165	186
Mills Mfg. Co. (S. C.).....	104	110
Mills Mfg. Co. (S. C.) Pfd.....	100	...
Monaghan Mills (S. C.).....	96½	101
Monarch Cotton Mills (S. C.).....	94	96
Newberry Cotton Mills (S. C.).....	118	118
Norris Cotton Mills (S. C.).....	108	110
Olympia Cotton Mills (S. C.) Pfd.....	85	...
Orangeburg Mfg. Co. (S. C.) Pfd.....	80	97
Orr Cotton Mills (S. C.).....	101	104
Pacolet Mfg. Co. (S. C.).....	180	190
Pacolet Mfg. Co. (S. C.) Pfd.....	100	104
Pelzer Mfg. Co. (S. C.).....	170	173
Piedmont Mfg. Co. (S. C.).....	167	177
Poe Mfg. Co. (S. C.).....	122	125
Richland Cotton Mills (S. C.) Pfd.....	52½	52½
Raleigh Cotton Mills (N. C.).....	99	106
Roanoke Mills (N. C.).....	140	140
Saxon Mills (S. C.).....	105	107
Sibley Mfg. Co. (Ga.).....	64	68
Southern Cotton Mills (N. C.).....	80	81
Spartan Mills (S. C.).....	145	151
Springfield Mills (S. C.).....	100	100
Trion Mfg. Co. (Ga.).....	130	142
Tucapau Mills (S. C.).....	165	...
Victor Mfg. Co. (S. C.).....	115	120
Warren Mfg. Co. (S. C.).....	99	100
Warren Mfg. Co. (S. C.) Pfd.....	105	107
Washington Mills (Va.).....	20	26
Washington Mills (Va.) Pfd.....	100	115
Whitney Mfg. Co. (S. C.).....	145	150
Wiscasset Mills (N. C.).....	122	125
Woodruff Cotton Mills (S. C.).....	106	110

Quotations Furnished by William S. Glenn, Broker, Spartanburg, S. C., for Week Ending October 15.

	Bid.	Asked.
Abbeville Cotton Mills (S. C.).....	85	86
Aetna Cotton Mills (S. C.) Pfd.....	70	70
Aiken Mfg. Co. (S. C.).....	83	89
American Spinning Co. (S. C.).....	120	123
Anderson Cotton Mills (S. C.).....	99	103
Aradia Mills (S. C.).....	91	95
Arkwright Cotton Mills (S. C.).....	122	...
Augusta Factory (Ga.).....	80	85
Avondale Mills (Ala.).....	100	...
Belt Mills (S. C.).....	104	108
Bibb Mfg. Co. (Ga.).....	117	118
Brandon Mills (S. C.).....	117	120
Brogton Mills (S. C.).....	77	80
Cabarrus Cotton Mills (N. C.).....	120	...
Chadwick Mfg. Co. (N. C.) Pfd.....	103	103
Chiquola Mfg. Co. (S. C.).....	93	96
Clifton Mfg. Co. (S. C.).....	120	125
Clifton Mfg. Co. (S. C.) Pfd.....	103	103
Columbia Cotton Mills (S. C.).....	140	145
Courtenay Mfg. Co. (Ga.).....	94	100
Courtenay Mfg. Co. (S. C.).....	97	100
Dallas Mfg. Co. (S. C.).....	90	...
Darlington Mfg. Co. (S. C.).....	60	65
D. E. Converse Co. (S. C.).....	117	...
Eagle & Phenix Mills (Ga.).....	129	...
Easley Cotton Mills (S. C.).....	130	136
Enoree Mfg. Co. (S. C.).....	80	85
Enoree Mfg. Co. (S. C.) Pfd.....	100	105
Enterprise Mfg. Co. (Ga.).....	82	90
Exposition Cotton Mills (Ga.).....	174	200
Gaffney Mfg. Co. (S. C.).....	89	92
Gainesville Cotton Mills (Ga.).....	35	...
Glenwood Cotton Mills (S. C.).....	102	104
Gluck Mills (S. C.).....	94	98
Granby Cot. Mills (S. C.) 1st Pfd.....	59	...
Grantville Mfg. Co. (S. C.).....	155	165
Greenwood Cotton Mills (S. C.).....	92	96
Grendel Mills (S. C.).....	112	116
Hartsville Cotton Mill (S. C.).....	92	97
Henrietta Mills (N. C.).....	200	...
Inman Mills (S. C.).....	96	97
King Mfg. Co., J. P. (Ga.).....	97	103
Lancaster Cotton Mills (S. C.).....	102	110
Lancaster Cot. Mills (S. C.) Pfd.....	95	99
Langley Mfg. Co. (S. C.).....	92	96
Laurens Mills (S. C.).....	160	165
Limestone Mills (S. C.).....	104	...
Lockhart Mills (S. C.).....	99	102
Lockhart Mills (S. C.) Pfd.....	101	101
Loray Cotton Mills (N. C.) Pfd.....	89	96
Louise Mills (N. C.).....	90	96
Louise Mills (N. C.) Pfd.....	102	102
Marlboro Cotton Mills (S. C.).....	150	200
Mayo Mills (N. C.).....	160	186
Mills Mfg. Co. (S. C.).....	99	100
Mills Mfg. Co. (S. C.) Pfd.....	99	101
Molloy Mfg. Co. (S. C.).....	87	96
Monaghan Mills (S. C.).....	100	...
Monarch Cotton Mills (S. C.).....	93	96
Newberry Cotton Mills (S. C.).....	115	...
Nineety-Six Cotton Mills (S. C.).....	92	97
Norris Cotton Mills (S. C.).....	106	...
Odell Mfg. Co. (N. C.).....	90	...
Orangeburg Mfg. Co. (S. C.) Pfd.....	80	...
Orr Cotton Mills (S. C.).....	100	104
Pacolet Mfg. Co. (S. C.).....	180	180
Pacolet Mfg. Co. (S. C.) Pfd.....	102	104
Pelzer Mfg. Co. (S. C.).....	167	175
Philmont Mfg. Co. (S. C.).....	137	145
Poe Mfg. Co., F. W. (S. C.).....	120	125
Raleigh Cotton Mills (N. C.).....	100	100
Richland Cot. Mills (S. C.) Pfd.....	50	...
Roanoke Mills (N. C.).....	118	...
Saxon Mills (S. C.).....	104	106
Sibley Mfg. Co. (Ga.).....	58	63
Southern Cotton Mills (N. C.).....	142	150
Springfield Mills (S. C.).....	102	100
Trion Mfg. Co. (Ga.).....	132	140
Tucupau Mills (S. C.).....	165	...
Victor Mfg. Co. (S. C.).....	115	...
Warren Mfg. Co. (S. C.).....	97	100
Warren Mfg. Co. (S. C.) Pfd.....	105	107
Washington Mills (Va.).....	25	...
Whitman Mills (S. C.).....	145	150
Whitney Mfg. Co. (S. C.).....	145	160
Wiscasset Mills (N. C.).....	119	...
Woodruff Cotton Mills (S. C.).....	106	110

New Corporations.

The Bank of St. Paul has begun business at St. Paul, Ark., with \$6000 capital. A bank is reported being organized at Sugar Tree, Tenn., by H. E. Graper and others of Lexington.

A new trust company with \$100,000 capital is reported organized at Gadsden, Ala., by local citizens.

It is reported that a new bank with from \$25,000 to \$75,000 capital is to be established at Belton, Texas.

The Ashdown Trust & Banking Co. of Ashdown, Ark., is to begin business October 10 with \$75,000 capital.

It is reported that C. T. Herring of Vernon, Texas, and others have established a bank at Crowell, Texas.

It is reported that a loan company with \$100,000 capital is to be established at Gadsden, Ala., by local citizens.

It is reported that the Thomas County Savings Bank will soon begin business at Thomasville, Ga., with T. J. Ball as president.

The Cromwell Deposit Bank of Cromwell, Ky., will, it is reported, begin business November 1 with J. J. Stewart, president, and J. P. Miller, cashier.

The First National Bank of Bardwell, Ky., capital \$25,000, is reported to have begun business with T. J. Gardner, president, and L. J. Bryant, cashier.

The Noel State Bank has been chartered at Noel, Mo., with \$10,000 capital. The stockholders are John McClanahan and John C. Hughes of Kansas City, Charles Gratz and others of Noel.

The First State Bank of Brackettville, Texas, has been incorporated with \$15,000 capital by N. P. Peterson, M. P. Malone, Hal G. Land, Osa Anderson, Jim Clamp, R. V. Sauer, Jos. Veltmann.

Reported that a private bank will soon begin business at Huckaby, Texas, with G. W. Riddle of Dallas, president; Lee Riddle of Stephenville, vice-president, and Whit Wheeler of Dallas, cashier.

The State Bank of Wren, Texas, has been organized with \$15,000 capital by F. W. Carothers and C. S. Belford of Georgetown, Dr. August Kuhn, E. S. Jungnuthel and W. H. Homeyer of Wolburg.

The Harpeth National Bank at Franklin, Tenn., which was recently approved, has elected the following officers: R. A. Bailey, president; W. A. Roberts, vice-president, and Jo J. Green, cashier.

The Citizens' National Bank of St. Jo, Texas, has been approved; capital \$25,000. The organizers are Jas. R. Wiley, R. M. Johnson, J. W. Mikel, A. U. Perryman, Erwin Johnson and G. W. Phillips.

The Mortgage Guarantee Co. of Baltimore, Md., has been incorporated with \$200,000 capital under the laws of Delaware by C. W. Fairbanks, Baltimore, and Edgar G. Miller and John H. Duncan.

The Weir State Bank, recently incorporated at Weir, Texas, with \$15,000 capital, has elected the following officers: C. S. Beeford, president, of Georgetown; Dr. Aug. Kuhn, vice-president, of Georgetown.

A new bank with \$50,000 capital is being organized at Blackville, S. C., by H. M. Dibble, C. K. Henderson, James Powell and B. F. Molley of Aiken, as well as local citizens. A. H. Neeson will be president.

The Commercial National Bank of St. Louis, Mo., capital \$1,000,000, has been approved. The organizers are Edward S. Lewis, John C. Roberts, Robert D. Lewis, Chas. P. Stanley, Louis Renaud and Ewing Hill.

The Florence State Bank has been chartered at Florence, Texas, with \$10,000 capital. The incorporators are F. W. Carothers and C. S. Belford of Georgetown, Dr. H. M. Bennett, Dr. O. B. Atkinson and B. M. Wales of Florence.

The Lee County Bank at Pennington

Gap, Va., capital \$20,000 to \$50,000, has been chartered by J. O. Gibson, president; J. C. Noel, vice-president; W. B. Emmert, Pennington Gap, Va.; John H. Caldwell, Bristol, Va.; J. M. Barr, Norfolk, Va.

The First National Bank of Tuttle, I. T., has been authorized to begin business with \$25,000 capital. The organizers are John A. Daugherty, Tuttle, I. T.; James H. Bond, B. C. Hendrick, W. T. Hambleton, H. W. Duckwall and F. P. Henry.

The Gibraltar Building Association has been incorporated at Baltimore, Md., with \$104,000 capital by Thomas J. Welsh, John P. Baer, Joshua G. Harvey, Jr., John A. Brady, Robert N. Baer, Rodgers O. Knight, John M. Kerr and William L. Burke.

The officers of the Bank of Flovilla at Flovilla, Fla., are Frank Ethridge of Jackson, president; E. M. Jackson of Indian Spring, vice-president; Tom Gibson, cashier; directors, Dr. A. F. White, F. M. and E. L. Lawson, Frank Ethridge and B. A. Wright.

Mr. G. B. Robertson, manager Jackson & Co. at Whaleyville, Va., writes the MANUFACTURERS' RECORD: "We decided Thursday to make a change in our bank. It will be known as the Bank of Whaleyville, capital \$10,000 to \$50,000; officers as before; surplus \$1500."

The Farmers' Trust Co. of Belton, S. C., capital \$25,000, has organized with the following officers: W. F. Cox, president; D. S. Vandiver, vice-president, and John A. Horton, cashier; directors, W. F. Cox, D. S. Vandiver, J. R. Harris, R. J. Gambrell, D. R. Simmons, C. H. Gassaway and F. L. Hopper.

The officers of the Champion Bank, which recently begun business at Canton, N. C., are G. W. Maslin, president; O. M. Hampton, cashier; directors, C. S. Bryant, W. J. Hampton, J. N. Mease, C. T. Wells, W. T. Sharp, T. R. Remsen, J. H. Mease, G. W. Maslin and H. Arthur Osborne.

The Farmers' Bank & Trust Co. has been organized at Manchester, Tenn., with \$20,000 capital by John P. Adams, John A. Harpole, A. M. May, E. C. Mowry and S. L. Hudson. The officers are John P. Adams, president; John A. Harpole, first vice-president; A. M. May, second vice-president, and A. F. Vincent, Jr., cashier.

The Bank of Washington County, to be located at Vinegar Bend, Ala., has filed articles of incorporation; capital \$10,000. The incorporators are James T. Williams, J. A. Gordey, Velmer G. Gordey, Miss C. A. Dodd, N. E. Turner, Horace S. Turner, A. Rhett Turner, M. Lankford, J. A. Prince, John D. Flourney, Paul Greinst and Vinegar Bend Lumber Co. of Vinegar Bend, A. L. Selder, E. J. Buck, William Vizard, George S. Leatherbury, P. J. Lyons, A. C. Tonsmeire, J. D. Torrey of Mobile and others.

The Statesville Realty & Investment Co., authorized capital \$50,000, has been chartered at Statesville, N. C. The stockholders are J. H. Hill, W. W. Turner, W. F. Hall, E. B. Watts, R. B. McLaughlin, J. G. Shelton, M. R. Adams, Chas. E. Mills, W. A. Thomas, D. A. Miller, John Turner, S. B. Miller of Statesville, E. P. Wharton of Greensboro, E. O. Anderson of Lincoln and John A. Parker of Dunn, Harnett county. Mr. John A. Parker of Dunn will take charge of the business as secretary and treasurer.

New Securities.

Alpine, Texas.—It is stated that the question of issuing \$14,000 of school-building bonds is being considered.

Asheville, N. C.—On November 6 an election is to be held to vote on \$30,000 of school bonds.

Big Stone Gap, Va.—The MANUFACTURERS' RECORD is informed that Season-

good & Mayer of Cincinnati, Ohio, were the highest of six bidders for the \$15,000 of bonds of Richmond school district of Wise county, their bid being at a premium of \$170.75 with accrued interest. Creed F. Blanton is clerk.

Biloxi, Miss.—The MANUFACTURERS' RECORD is informed that the Mayor and Board of Aldermen have instructed the City Council to give notice of their intention to issue \$25,000 additional water-works bonds for the extension of the water system. The bonds will be 10-year optional, interest not to exceed 5 per cent. F. W. Elmer is Mayor and O. G. Swetman City Clerk.

Butler, Mo.—Messrs. MacDonald, McCoy & Co. of Chicago have purchased at a premium of \$14,600 the \$370,000 of 6 per cent. river drainage bonds.

Clinton, O. T.—On October 16 the city will vote on \$32,000 of water and electric-light bonds.

Collins, Miss.—Messrs. John Nuveen & Co. of Chicago are reported to have recently purchased at par \$60,000 of Covington county courthouse bonds.

Conway, S. C.—The Security Trust Co. of Spartanburg, S. C., has purchased at a premium of \$381.60 and interest the \$40,000 of 4½ per cent. Horry county courthouse, jail and bridge bonds.

Cordell, O. T.—An election is to be held in Washita county November 6 to vote on \$50,000 of courthouse and jail bonds.

Corpus Christi, Texas.—The State school fund has purchased at par the \$4000 of 4 per cent. 5-20-year bridge bonds.

Douglas, Ga.—The city has voted to issue \$12,500 of light and water and \$5000 of school 5 per cent. 30-year school bonds.

El Reno, Okla.—It is reported that the question of holding an election to vote on high-school bonds is under consideration.

Floresville, Texas.—An issue of \$4000 of water-works bonds has been voted.

Girard, Ala.—The city has voted to issue \$10,000 of 5 per cent. school-building bonds.

Greenville, Ala.—The \$30,000 of 5 per cent. 30-year sewer and street-improvement bonds have been purchased at 101 by F. L. Fuller & Co. of Cleveland.

Hahira, Ga.—An election is to be held November 13 to vote on the question of issuing \$10,000 of 6 per cent. school bonds. John T. Courson is Mayor and Henry G. Zeigler Clerk.

Henderson, Ky.—An election is to be held in Henderson county November 6 to vote on \$175,000 of road and \$125,000 of courthouse bonds.

High Point, N. C.—It is reported that another election is to be held within 60 days to decide the question of issuing \$75,000 of bonds for the proposed Thomasville, Glen Anna & Pedee Railway & Construction Co.

Indianola, Miss.—The \$7000 of 6 per cent. 20-year bridge bonds have been purchased at par by John Nuveen & Co. of Chicago.

Jonesville, S. C.—The election to vote on \$4000 of school bonds failed to carry. Lampasas, Texas.—Lampasas county has voted to issue \$10,000 of 4 per cent. 5-40-year bridge bonds.

Lawton, Okla.—An election is to be held, it is reported, to decide the question of issuing \$25,000 of railroad aid bonds.

Lafayette, La.—It is stated that a plan is being promoted to issue school bonds.

Little Rock, Ark.—The Mercantile Trust Co. of St. Louis is reported to have purchased the \$75,000 of 5 per cent. school-building bonds.

London, Ky.—On November 6 an election is to be held to vote on \$15,000 of 5 per cent. water-works bonds.

Madill, I. T.—Bids will be received by John L. Carter, Mayor, until noon Oc-

tober 25 for \$40,000 of 5 per cent. 5-20-year water-works bonds.

Manor, Texas.—Reports state that Manor school district proposes to issue \$12,500 of building bonds.

Maysville, Ky.—The election to vote on \$60,000 of 4 per cent. school-building bonds is to be held November 6.

McComb City, Miss.—It is stated that on November 6 \$15,000 of 5 per cent. water-works bonds will be issued.

Moberly, Mo.—It is reported that an election will soon be held to decide the question of issuing \$100,000 of water-works bonds.

Morehouse, Mo.—An issue of \$5000 of 5 per cent. street-improvement bonds has been registered.

Murray, Ky.—An election is to be held in Calloway county November 6 to vote on \$35,000 of courthouse bonds, interest not to exceed 5 per cent.

Navasota, Texas.—The \$19,750 of 4 per cent. 10-30-year refunding bonds have been registered.

New Albany, Miss.—The Board of Supervisors of Union county will sell at public auction November 7 \$4500 of 6 per cent. drainage district bonds. W. G. Bias is clerk.

Noway, S. C.—The question of issuing water-works bonds is reported under consideration.

Orlando, Fla.—Bids will be received by the City Clerk until 4 P. M. October 30 for \$12,000 of 5 per cent. five-year street-paving bonds. D. Lockhart is chairman finance committee.

Owensboro, Ky.—An election is to be held November 6 to vote on \$60,000 of 4 per cent. 30-year additional water-works bonds.

Paden, I. T.—An issue of \$3000 of schoolhouse bonds was recently voted.

Punta Gorda, Fla.—Bids are being received by P. W. McAdow, C. M. Denham and F. M. Cooper for \$14,000 of wharf bonds.

Richmond, Ky.—The election to vote on \$30,000 of 20-year sewer bonds is to be held November 6.

Richmond, Texas.—An election is to be held in Fort Bend county November 6 to vote on \$4000 of 4 per cent. 5-10-year bridge bonds.

Richmond, Va.—Messrs. Seasongood & Mayer of Cincinnati have been awarded at a premium of \$170.75 the \$15,000 of 5 per cent. 5-15-year bonds of school district No. 1.

Sabinal, Texas.—Sabinal school district recently voted to issue school bonds.

San Antonio, Texas.—The following bonds of Bexar county have been approved and registered: \$25,000 5-40-year bridge refunding, \$115,000 10-40-year courthouse refunding, \$64,000 10-40-year courthouse refunding and \$21,000 10-40-year bridge refunding, all bearing 4 per cent.

Sherman, Texas.—Bids will be received by Henry Zimmerman, City Secretary, until 8 P. M. November 5 for \$40,000 of 4½ per cent. water-works refunding bonds. A. A. Fielder is Mayor.

Sherwood, Texas.—Irion county is reported to have purchased as an investment for the courthouse sinking fund \$2000 of 15-20-year bonds of Irion county school district No. 1.

Sulphur, I. T.—An election will soon be held, it is reported, to vote on \$16,000 of sewer bonds.

Sweetwater, Tenn.—All bids for the \$40,000 of municipal bonds are reported rejected, and it is said that new bids for same will be asked.

Tifton, Ga.—The election to vote on \$60,000 of 5 per cent. 1-30-year Tift county courthouse and jail bonds failed to carry.

